RECIPROCITY WITH CUBA.

HEARINGS

BEFORE

COMMITTEE ON WAYS AND MEANS,

FIFTY-SEVENTH CONGRESS, FIRST SESSION.

WEDNESDAY, JANUARY 29, 1902.

STATEMENT OF DR. HARVEY W. WILEY, OF THE DEPARTMENT OF AGRICULTURE, AND SPECIAL AGENT SAYLOR.

COMMITTEE ON WAYS AND MEANS:

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COMMITTEE ON WAYS AND MEANS,
WEDNESDAY, *January 29, 1902.*

The committee met at 10 o'clock a. m., Hon. Sereno E. Payne in the chair.

STATEMENT OF DR. HARVEY W. WILEY,

Chief of the Bureau of Chemistry, Department of Agriculture, Washington, D. C.

The CHAIRMAN. Give the committee your official position, Doctor.

Dr. WILEY. I am Chief of the Bureau of Chemistry of the Department of Agriculture.

I have been asked, Mr. Chairman, to present to the committee some remarks on the following subjects:

First. The relation of the cane and beet sugar industries, and a comparison of their respective rates of growth.

Second. The agricultural and technical interests involved in the production of sugar.

Third. The cost of producing sugar from cane and beets in the United States.

Fourth. The effect of European bounties, direct and indirect, upon the world's price of sugar.

Fifth. The possibilities of sugar production in Cuba and other tropical countries tributary to the United States, directly and indirectly.

All of these problems are of great scientific and economic importance and I regret that the time at my disposal has not been sufficiently great to collate all the important facts relative to the points which I have been asked to discuss. I also must be allowed to express regret that I have not had access to the printed testimony of all the witnesses before the committee which I was asked to read and summarize. I have endeavored, in the brief time at my disposal, to comply as fully as possible with the request of the chairman and I now have the honor to lay before you the results of my investigations:

The two great sugar-producing plants of the world are the sugar beet and the sugar cane. All the other sources of sugar—and there are many of them—are of very little commercial importance. The chief of the other sources are the maple tree, the sorghum plant, and the sugar palm. These do not by any means include all sugar-producing plants, but practically all.

The production of sugar is one of the most important elements of plant growth; and when plants do not produce sugar they produce some other form of carbohydrates belonging to the same class, like starches or cellulose. In other words, sugar, starch, and cellulose or woody fiber, cotton, and things of that kind are all the same from the point of chemical composition, and are all produced by the growing plant in exactly the same way.

The sugar cane is indigenous to India, first having been found near the mouth of the Ganges. The sugar beet is indigenous to the European shores of the Mediterranean Sea, where, as orginally it grew, it was an annual plant. When carried to the north, however, it changed its habit, and became a biennial plant, storing the sugar during the first year of its growth and ripening the seed during the second.

Until a hundred years ago almost the sole commercial source of sugar from plants, with the exception of honey, was the sugar cane. Maargraff, in 1747, discovered that the sweet principle of the garden beet was identical with the sugar in the sugar cane, and he prepared laboratory samples of this sugar. His pupil, Achard, was the first, in 1797, to prepare any considerable quantities of sugar from the beet. He was the first, in other words, who went beyond the laboratory in the production of sugar from this plant. At that time sugar was a very high-priced article, bringing 25 or 30 cents a pound, and even more; and he announced (which was hardly credible in those days) that he believed sugar could be made from the sugar beet at a cost of not to exceed 6 cents a pound.

At the time of the continental blockade during the Napoleonic régime this discovery of Achard's produced a lively interest in France, and a committee of the French Academy was appointed to investigate the claims which he had made. As a result of these investigations, the Emperor Napoleon issued a decree that beet sugar should be made in France on a commercial scale; and a great many very small factories, considered from the present standpoint, were established at this time.

It was not, however, until almost half a century later that beet sugar assumed any commercial importance, although its real start as

a commercial article was due to the decrees of Napoleon, establishing these factories in France. From that period the respective growth of the cane and beet sugar industries will be of interest to this committee. [At this point Dr. Wiley exhibited a chart to the committee.]

Dr. WILEY. I have given this in a graphic form, so that by a single glance the members of the committee can see the relative growth of these two great industries during the last half century, from 1855 on. This shows the production in units of 100,000 tons of 2,240 pounds each.

It is very unfortunate, Mr. Chairman, that we have in this country so many units of measure, and it will be a great thing in commerce when Congress ordains that the metric system shall be that in common use, as it is now in official use. We have three kinds of tons, which are given by statisticians and are always producing confusion.

Mr. MCCLELLAN. Three kinds, you say?

Dr. WILEY. Three kinds of ton. We have this ton, which is the usual commercial ton of 2,240 pounds; we have a short ton of 2,000 pounds, and we have the metric ton, which is the weight of 1,000 kilograms—nearly 2,205 pounds. All of these tons figure in commerce. This chart is in tons of 2,240 pounds, units of 100,000 tons.

In 1855 and 1856 the production of cane sugar, as you see, was a little over a million tons—that is, ten units of 100,000 tons each—while the production of beet sugar at that time is represented by the solid black line. Now, see the relative growth. In 1885 the quantity of sugar produced from the two sources was almost exactly equal, as you see by the equality of the length of these two lines. Since that period the beet sugar has gained most rapidly on the other, and you will see that for the estimated crop of 1901–2—that is, the crop which is now making and almost finished—the quantity of the beet sugar, as represented by the black line, is almost 7,000,000 tons, while the quantity of cane sugar is not quite 4,000,000 tons.

Thus, in the last sixteen years, the beet sugar has gained upon the cane sugar in a most remarkable manner.

Mr. MCCLELLAN. Will this table appear in the report of your testimony?

Dr. WILEY. Yes, sir. It is all described in detail.

Mr. COLCOCK. I beg your pardon, Dr. Wiley; but that is commercial sugar, is it not? That is to say, India produces 3,000,000 tons of sugar which is consumed entirely by her population.

Dr. WILEY. That is mostly palm and cane sugar, which does not figure here. This, of course, is the sugar of commerce, as reported by statistics.

The CHAIRMAN. Have you a similar chart in your typewritten statement?

Dr. WILEY. I will have that chart photographed and put in with the manuscript. I will have it done immediately. The table from which this is constructed is in the text; but for purposes of illustration, the graphic form is very much better; it appeals more prominently to the eye. This is the table in detail from which this graphic chart is constructed:

Sugar production of the world, 1853–54 to 1901–2.

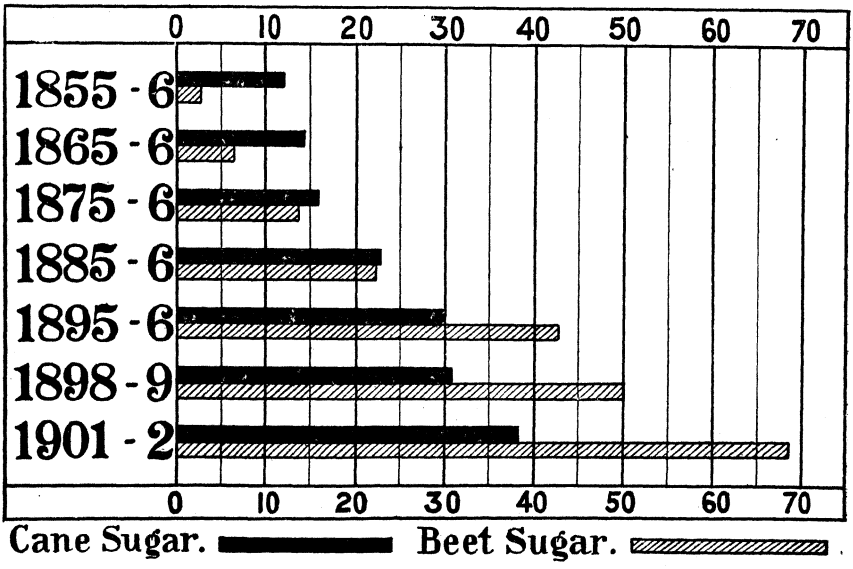
[Tons of 2,240 pounds.]

Year.	Cane.	Beet.	Total.
	Tons.	*Tons.*	*Tons.*
1853–54	1,277,000	304,000	[a] 1,481,000
1855–56	1,202,000	241,000	[a] 1,443,000
1860–61	1,292,000	351,000	[a] 1,643,000
1865–66	1,417,000	627,000	[a] 2,044,000
1870–71	1,663,000	900,000	[a] 2,463,000
1875–76	1,590,000	1,343,000	[a] 2,933,000
1880–81	1,911,000	1,748,000	[a] 3,659,000
1885–86	2,289,900	2,229,973	[b] 4,519,873
1890–91	2,632,000	3,642,000	[b] 6,274,000
1891–92	2,652,000	3,813,000	[b] 6,465,000
1892–93	3,040,486	3,428,515	[c] 6,469,001
1893–94	3,493,780	3,889,845	[c] 7,383,625
1894–95	3,531,413	4,792,530	[d] 8,323,943
1895–96	2,969,811	4,285,429	[d] 7,255,540
1896–97	2,816,051	4,915,759	[d] 7,731,810
1897–98	2,868,901	4,872,173	[e] 7,741,074
1898–99	3,095,450	5,014,572	[f] 8,110,022
1899–1900	2,864,959	5,590,992	[f] 8,455,951
1900–1901	3,502,390	6,145,853	[f] 9,648,243
1901–2	3,850,000	6,860,000	[f] 10,710,000

[a] Bouchereau's The Louisiana Sugar Report, 1898–99, p. 127a.
[b] Willett and Gray's Weekly Statistical Sugar Trade Journal, Sept. 24, 1891.
[c] Willett and Gray's Weekly Statistical Sugar Trade Journal, Jan. 3, 1896.
[d] Willett and Gray's Statistical Sugar Trade Journal, Dec. 2, 1897.
[e] Willett and Gray's Weekly Statistical Sugar Trade Journal, Nov. 15, 1900.
[f] Willett and Gray's Weekly Statistical Sugar Trade Journal, Jan. 2, 1902.

The foregoing table shows an increase of 201 per cent in the production of cane sugar in the last forty-eight years, and an increase of 3,263 per cent in the production of beet sugar. The world's crop has risen from 1,481,000 tons to 10,710,000, an increase of 637 per cent. This data may be more strikingly shown in graphic form, as is illustrated by the accompanying chart.

WORLD'S SUGAR CROP IN UNITS OF 100,000 TONS OF 2,240 POUNDS.



The beet sugar of the world, as is well known, is made exclusively in Europe. I say "exclusively," because, for commercial purposes, the small amount made in the United States, and the smaller amount made in Egypt and in Canada, cut no figure whatever so far in commerce. So that we may say that the home of the beet sugar is on the Continent of Europe.

The question of the relative character of the two sugars comes also into this discussion. "Are they identical?" This is a question which has been asked me hundreds of times. I will say, in reply, that the pure sugar made from cane and made from beets is identical in every particular; but the raw sugars are wonderfully different in their composition, so it is only the absolutely pure sugars which can be regarded as identical. Therefore, although this table shows the rapid relative growth of the beet industry, it does not mean by any means that the beet industry can ever drive the sugar-cane industry out of existence, although a great many people calmly speak of the possibility of such an event in the future—that is, that the increase in the beet-sugar industry will be so great that the industry of making sugar from the sugar cane will cease.

There are, however, certain uses, based upon the properties of the two sugars, which can not be interchanged. For instance, for commercial purposes, for baking purposes, for preserving and other similar purposes, the raw beet sugar can never take the place of the cane sugar, for the reason that beet sugar in its unrefined state is scarcely fit for human consumption, either directly or in the cuisine.

This is best illustrated by two samples which I have brought, such as are taken every day for polarization for the purpose of ascertaining the rate of duty to be imposed upon imported sugar. Under the arrangements between the Secretaries of Agriculture and of the Treasury, the control of all the sugar laboratories in the Treasury is vested in the Department of Agriculture, so that we get every day samples of the sugars which are taken for polarization, and these are samples that come to our laboratory.

I wish the committee would simply open these two cans and smell each one, and you can then understand the force of my argument, and understand why it is that a raw beet sugar can not be used for commercial purposes, while a raw cane sugar can be. So for the great preserving industries, for making jams and jellies, and for baking cakes, where low-grade sugars are preferred, the beet sugar can never take the place of the cane sugar. Therefore, the cane sugar, in spite of this relative increase in magnitude of the two industries, can never be driven from the markets of the world.

I will show, as the hearing proceeds, what the cause of this remarkable increase is.

Now, Mr. Chairman, you might think that when you refine that article this difference would disappear. But I can tell, and so can any expert in sugar, whether a refined granulated sugar is made from cane or whether it is made from beets.

Mr. McCLELLAN. Without analysis?

Dr. WILEY. Without analysis. You simply need to place such a sugar in a jar, only partly filled, and stopper it for twenty-four hours. Take a perfectly white sugar, polarizing almost 100, made from beets. Place it in a jar, stopper for twenty-four hours, take out the stopper,

and smell it. This odor, like the odor of the roses in the broken vase, "will hang round it still," even in the refined state as it is sold in commerce.

Of course you will understand that refined sugar is not chemically pure. I have said to you that if they be chemically pure the two sugars are identical; but in commerce they are not absolutely chemically pure. So, even in the refined state, this difference in odor still attaches itself to these two classes of sugar. It is not noticed when the sugar is left opened, but it is noticed when the jars are closed.

The CHAIRMAN. Is that any detriment to it in ordinary use?

Dr. WILEY. Not at all, sir; not in the least for the ordinary purposes to which sugar is put.

The CHAIRMAN. Doctor, thirty or forty years ago large quantities of centrifugal sugar from cane were used in the country, without being refined, were they not?

Dr. WILEY. Yes, sir; and I am sorry they are not yet. It is the best sugar in the world.

Mr. MCCLELLAN. It is what was called brown sugar, I believe?

Dr. WILEY. Brown sugar or yellow sugar; and I wish that our people would still have the good, old-fashioned taste for that kind of sugar. It is still the taste in London. The fashionable sugars in London are not white sugars, but yellow crystals, sometimes artificially colored to make them yellow, in order to increase their market value.

Mr. MCCLELLAN. I do not understand why the sugar producers of Louisiana do not sell that sugar on the market to a greater extent.

Mr. OXNARD. They do sell it.

Mr. MCCLELLAN. We do not see any of it in our part of the country.

Dr. WILEY. Well, I do not know, Mr. Chairman. I prefer the yellow sugars myself, both in taste and flavor, to the refined sugars.

The CHAIRMAN. I confess I have had quite a liking for it from boyhood.

Dr. WILEY. The sugar beet, as will be evident without reference to the maps of the country, is preeminent among sugar-producing plants as having reached its highest perfection in northern latitudes. It is a plant which is remarkably susceptible to its environment, varying rapidly and radically when subjected to various climatic conditions. The nature of these variations and the particular conditions of environment which most influence the beet have been established by rigid scientific investigation. The results of the most recent of these investigations have been published as Bulletin 64 of the Bureau of Chemistry of the Department of Agriculture, marked "Exhibit A." This exhibit shows that in our own country our best beets grow in northern latitudes. I also offer "Exhibit B," being Farmers' Bulletin No. 52, showing the probable southern limit of profitable beet culture in the United States, as indicated by a map in which the shaded band represents the limit referred to. All the area in this belt and north of it, where the conditions are favorable to culture, can be devoted, in part at least, to the production of sugar beets, remembering only that the northern limit is that which permits the ripening of the crop and its harvest before the advent of winter.

The reason of this is a physiological and biological one which is evident to all. The formation of sugar is a function of sunlight and of the green cells of plants; and therefore, during the growing season, the

more sunlight you can get upon a plant like the beet, other things being equal, the more sugar it will produce. As you go north the length of the day increases during the growing period, so that in northern New York the day at least is an hour longer than it is in Louisiana. Therefore a sugar beet grown in Louisiana would have an hour less to work during each twenty-four hours in the formation of sugar; and this, during the whole growing season, would make a vast difference. It is seen in Bulletin 64, "Exhibit A," that beets grown in Raleigh, N. C., from the same seed as the other samples, had only 5 or 6 per cent of sugar, while beets grown from the same seed at Geneva, N. Y., had 16 per cent of sugar.

This is a remarkable fact, showing the susceptibility of the sugar-beet to environment. Planting the same seeds, cultivating the same way, and giving them the same attention, we only got 6 per cent of sugar in Raleigh, N. C., while in Geneva, N. Y., we got 16 per cent.

But the sugar beet resembles perhaps more than anything else the high-grade stock of the country. It has the same position in plant life that the Jersey cow and the race horse have in live stock. It is the result of high breeding, and therefore is extremely susceptible to environment, as is every high-bred animal and plant.

On the other hand, the sugar cane is still almost in its natural state. It is not a high-bred plant, and therefore is less susceptible to environment, and less effect has been produced upon it simply because it was not necessary. Nature has cared for the sugar cane. She has endowed it with a natural content of sugar ranging from 12 to 16 per cent, while with the beet it is only from 4 to 6 per cent. Thus the beet represents, in the plant kingdom, the result of scientific agriculture, while the cane represents the result of Nature's endowment alone; and the beet illustrates more than any other plant what science applied in agriculture can do for the human family, it having developed from an unpromising material a source of sugar which more than rivals that which Nature has put of her own accord in the sugar cane. Thus the beet commends itself, by reason of its high breeding, to the favorable consideration of all persons who have control, by fiscal legislation or otherwise, of its future. It is as susceptible to legislation as it is to environment, and therefore is a plant of the highest culture, representing the highest skill and the highest agriculture, and being worthy of our particular attention on that account.

The next point to which I will bring your attention is the consumption of sugar in the United States, for that is a problem which touches directly upon this industry, and as what I say I try to base solely on established statistical data, we want to have them before us in a form in which they can be used.

Consumption of sugar in United States, 1881–1901.

[From Willett & Gray's Statistical Trade Journal, January 2, 1902.]

Year.	Tons of 2,240 pounds.	Increase over previous year.	Per capita.	
			Pounds.	Increase over previous year.
		Per cent.		*Per cent.*
1881	993,532	.....	44.2	.....
1882	1,061,220	6.8	44.8	9.5
1883	1,170,375	10.3	51.1	5.6
1884	1,252,366	7	51	[a].2
1885	1,254,116	.14	49.95	[a]2.1
1886	1,355,809	8.11	52.55	6.2
1887	1,392,909	2.73	53.11	1.7
1888	1,457,264	4.62	54.23	2.2
1889	1,439,701	[a]1.21	52.64	[a]2.9
1890	1,522,731	5.80	54.56	3.6
1891	1,872,400	22.96	67.46	23.6
1892	1,853,370	[a]1.102	63.76	[a]5.5
1893	1,905,862	2.83	63.83	1.1
1894	2,012,714	5.08	66.64	4.4
1895	1,949,744	[a]3.27	64.23	[a]3.6
1896	1,940,086	.53	60.9	[a]5.2
1897	2,070,978	6.79	63.5	4.3
1898	2,002,902	[a]3.29	60.3	[a]5
1899	2,078,068	3.75	61	1.1
1900	2,219,847	6.82	66.6	[b]9.2
1901	2,372,316	6.87	69.7	4.7
Total for 20 years	.....	[c]138.77	.....	57.69
Average per annum	.....	[c]6.94	.....	2.88

[a] Decrease.
[b] From United States Department of Agriculture Yearbook, 1898, p. 722.
[c] Based on yield for 1881 alone. The average annual increase in consumption over the previous year is only 4.45 per cent.

This table shows that the total percentage of increase in consumption in the United States for the twenty years beginning with 1881 is 138.77, and the average increase per year 6.94 per cent. The consumption per capita has increased during the same period 57.69 per cent, showing an average yearly increase of 2.88 per cent. These data are extremely valuable in enabling us to compute the probable consumption of sugar in the United States at any not too remote future period. It is fair to assume that if conditions remain practically as they are, there will be an average annual increase of 7 per cent in the consumption over 1881, due to the increase in the population on the one hand, and the average annual increase in consumption of about 3 pounds per head on the other.

Mr. COOPER. Doctor, have you in your paper a statement showing the production of sugar in all countries, the quantity produced, and the markets at which it is disposed of?

Dr. WILEY. I have not included in the table the markets, but I have included the other points you mentioned.

In ten years, therefore—and this is one of the points which this committee has asked me to consider in this presentation—the increase in consumption would be equal in round numbers to a consumption of 3,000,000 tons. In twenty years from this time the consumption, according to the same calculation, would amount to 3,780,000 tons, which represents the consumption of sugar in the United States in 1921; or, in round numbers, 4,000,000 tons.

It may be said with reason that it is not accurate to base consumption for so long a time upon a period so remote as 1881. The table shows that for the 20 years covered therein the average annual rate of

increase of consumption was almost 4.45 per cent over the consumption of the previous year. In 1911, according to this rule, the consumption would be 3,667,000 tons instead of 3,000,000 tons, as computed by the first method. In 1921, according to the same rate of annual increase, the consumption would be 5,667,000 tons. It is quite probable, however, that a geometrical rate of increase would not be maintained, and perhaps the nearest approximation we can make to the actual consumption would be a mean between the two methods of computation. This would make the probable consumption in 1911 3,333,500 tons, and in 1921 4,723,500 tons.

It will be interesting to compare the above data with some of the principal beet-sugar producing countries of Europe. The consumption of sugar per capita in France is 36.9 pounds, in Germany 33.9, in Holland 32.4, in Belgium 23.3, in Austria 17.6, and in Russia 14 pounds. It is thus seen that the great sugar-producing countries of Europe, upon the whole, use just about one-third as much sugar per head of population as is consumed in the United States. It is evident that the necessity for a foreign market in Europe is a very great one, especially in those countries of Europe where the production is enormously in excess, as is true in the three great sugar-producing countries of Germany, Austria-Hungary, and France.

The reasons of this smaller consumption are not difficult to discover. In the first place, the people of those countries, as a rule, are not so well to do as they are in our own country; and hence do not have so much money to spend for an article of food which still, in some parts of Europe, perhaps, is considered a luxury rather than a necessity. The more efficient reason, however, is found in the fact that by the system of taxation in those countries, which will be explained further on, the price of sugar for domestic consumption is raised enormously above the cost of production, while these same countries offer their sugar to foreign countries at a price certainly not above the cost of production, and sometimes even under that cost. This subject will be discussed again in a subsequent part of these remarks.

An important question which is brought before the committee at the present time is, "What does it cost to make sugar in different parts of the world?" This is a question which it is very difficult to answer with accuracy, and on which there is a great deal of conflicting testimony. All the factors which enter into the industry, of course, have to be considered; and it is almost impossible to obtain the exact data in all cases. It appears from a great deal of the evidence which has been brought forward that sugar production has ceased to be a paying industry. The evidence which was submitted by the sugar interests favoring reciprocity, and published as hearings before the Committee on Ways and Means under date of January 15 and 16, 1902, is to the effect that at present prices sugar production has ceased to be profitable in Cuba.

The German sugar producers have the same complaint to make of their own industry. In a review of the world market for sugar, the Centralblatt für die Zuckerindustrie, published in Magdeburg, January 3, 1902, says:

> No one sheds a tear for the old year, since it brought severe losses to the trade, only disappointments to sugar-beet agriculture, and a depression in the price of raw sugar which means ruin for a number of factories. As concerns the new year, especially in view of the uncertainty of the future of our trade policy which exercises a paralysis on our spirit of enterprise, we dare not base any too great hopes.

The sugar-producing interests in the British tropical colonies are absolutely upon the verge of ruin, as is shown by the testimony before the royal commission. (See reports of West India Royal Commission, vols. 1 to 3, inclusive, entitled "Minutes of Proceedings, Reports of Evidence, and Copies of Certain Documents," printed by order of Parliament in 1897, by Eyre & Spottiswoode. The documents are marked C–8655, C–8656, C–8657, and C–8669.)

In the testimony which is presented by the beet-sugar makers of Michigan in a circular which was offered to the committee, on page 10, line 241, it is stated that the total cost of making 100 pounds of refined sugar is $4.682. At the same time the selling price of sugar in Michigan is stated to be $4.463 per 100 pounds. According to this showing, the Michigan beet-sugar growers are losing $0.219 per 100 pounds.

In the testimony of the Louisiana sugar planters, Colonel Hill said:

> We can not make sugar in Louisiana for less than 3½ cents a pound.

And he showed that the price received for the sugar was three-sixteenths of a cent less than the price of the same sugar in New York. Thus, at the ruling price of raw sugar in New York (which, during January, has been about 3⅝ cents a pound), the price received by the Louisiana people was almost exactly the actual cost of production, leaving no margin of profit whatever.

All this testimony, coming from all quarters of the sugar-producing world, shows that the sugar industry at the present time barely exists, or is positively on the road to bankruptcy.

Perhaps the most reliable data in regard to the actual cost of beet sugar in the United States are contained in Census Bulletin No. 59, issued March 7, 1901, which is presented as "Exhibit C." The data which this bulletin contains were obtained under directions which I prepared and by one of my assistants, Dr. G. L. Spencer, who, perhaps, is the best-posted sugar expert in the United States. Dr. Spencer personally visited every factory, and thus secured all the data in person; and it is believed that they represent as nearly as possible the truth in this matter. This bulletin shows that the average richness in sugar of the beets grown in the United States during the census year ended May 31, 1900, was 14.5 per cent, and the coefficient of purity 81.2. By "coefficient of purity" is meant the percentage of sugar found in the total solids in the juices of the beets. The coefficient of purity is a most important factor in calculating the yield of refined sugar per ton. The higher the coefficient of purity the greater the percentage of sugar contained in the beets which is finally secured in a merchantable form. The coefficient of purity of the beets grown in the United States is almost at the lowest limit permissible for good results in manufacture. In other words, a coefficient of purity less than 80 is considered extremely poor.

In regard to the actual cost of beets, or rather the amount paid to the farmers therefor, the Census Bulletin shows that it amounts to $4.39 per ton of 2,000 pounds. This includes the price of beets in New York, which, by the bounty law of that State, must be $5 per ton. The price paid for beets in most parts of the United States is on a sliding scale, being $4 per ton of 2,000 pounds for beets containing 12 per cent of sugar, with about 3⅛ cents increase for each tenth of a per

cent of sugar above 12, and a corresponding decrease for each tenth of a per cent below 12.

In regard to the yield per acre, it is seen that during the census year 135,305 acres of beets were planted in the United States, yielding 794,658 tons. This is a yield of 5.8 tons per acre. A considerable percentage of the total acreage planted to beets was not harvested, so that the yield per acre of harvested beets was somewhat greater than that mentioned. The actual number of acres harvested was 105,175, and the average yield of beets per ton of 2,000 pounds was nearly exactly 8 tons per acre. The quantity of sugar made from these beets was 161,474,100 pounds, or 203 pounds of sugar per ton of beets. Pure granulated sugar formed 72 per cent of the total of this output, and 28 per cent was low-grade sugar suitable only for refining. The average polarization of this low-grade sugar is not given in the census returns, but we know by experience that it was probably below 90. If we place it at 90 it is seen that the total amount of pure sugar recovered from 2,000 pounds of beets was considerably less than 200 pounds, and probably not more than 190 pounds.

The testimony of the Michigan people is that they are getting about 9 tons of beets per acre.

I wish to say this about reported data regarding yields, etc., Mr. Chairman: They are nearly always unreliable. You will hear a man say: "I got 40 tons of beets per acre, and I made 250 pounds of sugar per ton." While it is pleasant to hear men say that, I do not think they believe it, and I certainly do not believe it. When you come to these enormous yields it may be possible in individual cases that a small area will give them, but we must take the average. What is the average yield, and what is the average output? That is what the committee wants to know, and that is what I am trying to give them.

Now, these are my opinions from these data. You can take them for what they are worth.

With all the reliable data which are available I would say:

1. The average yield per acre of beets in the United States does not reach 10 tons.

2. Our farmers for the most part are growing beets without any fertilization, and it is not likely that the average yield will be increased until fertilizers are abundantly supplied and more scientific forms of agriculture practiced.

3. It is almost impossible to determine just what the farmer's expense in growing a crop of beets is, as it is hard to estimate his labor and that of his own people and farm animals.

4. The actual cost of the production of beets in this country, where fertilizers are not used, may be confidently stated as not less than $30 per acre.

5. The cost of manufacturing the beets is better known, because the data are more easily accessible. In the manufacture in the United States of the 794,658 tons of beets reported in the census bulletin, there were used the following quantities of materials:

Limestone	tons	64,805
Coke	do	7,519
Sulphur	do	149
Barrels		90,985
Sacks		1,342,649
Coal	tons	109,235
Oil	gallons	7,017,079
Wood	cords	3,459

In the manufacture of these beets the following expenses were incurred:

Paid for beets	$3,485,320
For fuel	453,036
Milling supplies	18,933
Freights	369,070
All other materials	477,437
Salaries and wages	1,448,882
Miscellaneous expenses	451,351
Total	6,704,029

The above represents the actual expense of manufacturing 794,658 tons of beets, yielding products which are valued at $7,323,857. This shows an apparent profit on manufacture of $619,828 on an invested capital of $20,958,519, which represents almost exactly 3 per cent of the money invested. No account has been taken, however, of the deterioration of the plants known as wear and tear and repairs. This, on a capital of $20,000,000, would be at least 10 per cent, or $2,000,000.

Mr. METCALF. Do you mean for a year?

Dr. WILEY. Yes, sir.

Mr. METCALF. Is not that a little bit high?

Dr. WILEY. I do not think so, sir.

Mr. METCALF. Do we not estimate, for depreciation of all machinery, about 5 per cent?

Dr. WILEY. With repairs and all restorations, I do not think it is very high.

The CHAIRMAN. I think the rule of manufacturers is 10 per cent.

Dr. WILEY. I have been in the business a good deal, not as an investor, but as an expert.

The CHAIRMAN. I think 10 per cent is the rule among manufacturers generally.

Dr. WILEY. I do not think I have estimated it too high. It may be.

Mr. STEELE. The plants stand idle nine months in the year.

Dr. WILEY. If this be taken into consideration, the apparent profit of 3 per cent on manufacture vanishes.

Mr. NEWLANDS. It means a loss, then, does it not?

Dr. WILEY. It means a loss.

Mr. NEWLANDS. Of $1,300,000?

Dr. WILEY. Yes, sir. That is for the census year, remember; and that contains the most reliable data we have.

Now, while it is doubtless true that a few of the factories during the census year made profits, it is perfectly evident, from a critical study of the only reliable data which we have on the subject, that for the whole sum invested, after allowing for wear and tear, there was a deficit instead of a profit.

I desire to call the particular attention of the committee to this part of my statement, because the Census Bulletin itself refers to it.

We readily grant that the census year, viz, the year ended May 31, 1900, was not a most favorable one from an agricultural point of view; and it is hard, Mr. Chairman, to find when there ever was a favorable year. I never have known any kind of an industry that did not have a bad year, about the time the census is taken. In fact, if this assumption is not made, it is evident that the beet-sugar industry of the United States is not on a paying basis. But granting this point, it is clearly seen that, taken as a whole, the profits made by the farmer in

growing the beets and the manufacturer in turning them into sugar are not greater than the character of their labor and the expenses connected therewith would warrant.

The foregoing data show that the total number of pounds of beet sugar made was 161,474,100, which would make the actual cost of the sugar 4.15 cents a pound. It may be safely stated, therefore, that the minimum cost of the production of beet sugar in the United States, up to the present time, has not been less than 4 cents a pound.

The cost of making beet sugar is slightly greater than that of cane sugar, and this is easily explained when it is considered that the process of manufacture of beet sugar is by far more complicated and more expensive than that required for cane sugar.

The actual price paid for foreign sugars delivered in New York is easily obtained by deducting from the market price the amount of duty which is collected. To the amount of duty must be added the countervailing duties on sugars imported from Germany, Austria, Russia, and France, and other countries paying bounties on exported sugars.

I come now to the fourth point which I was asked to discuss by the committee, viz, European sugar bounties, and I want to call the special attention of the committee to this part of the discussion. I was asked to state what they are, how they are paid, what effect they have upon the industry both in Europe and in this country, and what methods are employed for neutralizing their effects.

The German law now in force, with very slight modifications, became effective on May 29, 1896. The sections which are of importance in regard to the bounties are as follows:

SEC. 77. When sugar in quantities of at least 500 kilograms is exported, or deposited in public or private warehouses under official control [what we call bonded warehouses], and not intended for domestic consumption, it is entitled to the following direct premiums:

(*a*) Raw sugar of at least 90 per cent purity, and refined sugar under 98 per cent purity, 2.50 marks per 100 kilograms (0.269 cent per pound).

(*b*) Loaf sugar and all sugar in pure white blocks or cubes of at least 99.5 per cent purity, 3.55 marks per 100 kilograms (0.383 cent per pound).

(*c*) For all other sugars of at least 98 per cent purity, 3 marks per 100 kilograms (0.324 cent per pound).

SEC. 79. The Bundesrath is authorized to lower or abolish the above premiums when other countries paying bounties on exported beet sugars lower or abolish them.

SEC. 80. The tariff on imported sugars of all kinds, solid and liquid, is 40 marks per 100 kilograms (4.32 cents per pound).

Mr. NEWLANDS. What is that—4 cents a pound?

Dr. WILEY. Yes, sir; 4 cents and a little more—4.3 cents a pound. That is the import duty.

The French law now in force bears date of April 7, 1897, and was promulgated in the Journal Officiel of April 8, 1897. Its provisions relating to direct bounties on exported sugars are these:

(*a*) Unrefined sugars, granular or in small crystals, of at least 98 per cent polarization for beet sugars, and 97 per cent for colonial cane sugars, the polarization being made before the deduction of loss during refining, receive a bounty of 5 francs per 100 kilograms (0.35 cent per pound) of pure sugar contained therein. When, however, sugars of this category are so pure that they polarize not less than 99.75 per cent, they are entitled at their full weight to the rate of bounty enjoyed by exported unrefined sugars.

(*b*) Raw sugars polarizing from 65 to 98 per cent for beet sugars, and from 65 to 97 per cent for colonial cane sugars receive, for each 100 kilograms of pure sugar contained therein, 3 francs 50 centimes (0.31 cent per pound).

(*c*) Rock crystal sugars (candied sugars) are entitled to a bounty of 4 francs 50 centimes (0.39 cent per pound) per 100 kilograms of pure sugar.

(*d*) Refined sugars, in loaves or blocks, perfectly white, hard, and dry, 4 francs 50 centimes per 100 kilograms (0.39 cent per pound).

(*e*) Powdered sugars, for each 100 kilograms of pure sugar therein, 4 francs 50 centimes (0.39 cent per pound).

(*f*) Refined sugars, in grains or crystals, polarizing at least 98 per cent, 4 francs per 100 kilograms (0.35 cent per pound). When the sugars of this last category polarize 99.75, they will be considered as pure refined sugars, and will be entitled to a bounty at their full weight without any deduction whatever.

It is important to note, in connection with these laws, especially the French, that indirect bounties on export sugar are secured by a duplex system of taxation—a tax on the domestic industry and one on importations. In all the sugar-producing countries of Europe the domestic sugar industry is highly taxed. In each of these, however, the duties levied on importations are invariably higher than the tax on domestic production. The object of this is to secure the consumption of domestic sugars, and practically to exclude those of foreign origin. The wisdom of such a fiscal policy can not be discussed here.

By reason of the indirect French tax, it is very difficult to compute just what the indirect bounty is. The Secretary of the Treasury has done that, however, and in fixing the amount of the countervailing duty has taken that into consideration.

Mr. TAWNEY. One moment. Did you state what the import duty was on sugar going into France?

Dr. WILEY. I did not quote that part of the law; but it is almost exactly the same as the German import duty. I can not give the exact figures, because I did not quote that part of the law here; but as I say, it is almost exactly the same as in Germany.

Mr. DALZELL. Doctor, there is no sugar imported in either France or Germany, is there?

Dr. WILEY. Almost none. There may be a little cane sugar imported for special purposes.

On December 12, 1898, the Secretary of the Treasury issued his instructions for collecting countervailing duties against sugars imported from France and Germany as follows.

(Now, these are the countervailing duties against France to cover these direct and indirect bounties of which I have spoken.)

FRANCE.

Raw sugars of the standard of 65 to 98 per cent for beet-root sugars, or of 65 to 97 per cent for French colonial sugar, per 100 kilograms of refined sugar, 100 per cent, francs 10.82.

Sugar candies calculated at their legal equivalent, per 100 kilograms, effective weight, francs 11.51.

Refined sugars, in load or crushed, clear, hard, and dry, per 100 kilograms, effective weight, 11.51.

Raw and refined sugars in grains or crystals of a minimum standard of 98 per cent, francs 11.17.

The output of refined sugar from raw is calculated by deducting from the polarization of the raw sugar twice the glucose, four times the ashes, and 1½ per cent for loss in refining.

These are the total countervailing duties collected on French sugar.

Mr. MCCLELLAN. And they are practically equivalent to the bounties paid?

Dr. WILEY. As nearly as we can compute them. We know the direct bounty; that is in the law. The indirect bounty in France is

computed on what they call the legal yield. They allow, say, that a ton of beets would make 7 per cent of refined sugar. Then when they export 140 pounds of refined sugar they get a rebate of the total amount they have paid on that ton of beets as the internal-revenue tax; but as they get over 10 per cent of sugar, they get the same rate of rebate on the excess; and that is the indirect bounty which these instructions consider in connection with the direct bounty.

The imposition of the duties above described mean almost an absolute shutting out of French sugars from our markets, as they amount to almost 2 cents a pound.

Mr. NEWLANDS. Is that in addition to the regular duty?

Dr. WILEY. Yes, sir; it is in addition to the regular duty.

Mr. NEWLANDS. Making 3.68 in all?

Dr. WILEY. About 3.68 for French sugar, or about 96 polarization.

The countervailing duties on German sugar are as follows:

On raw sugar at least 98 per cent polarization, and on refined sugar under 98 per cent and at least 90 per cent, 2.50 marks per 100 kilograms.

On candy and sugar in white, hard loaves, blocks, crystals, etc., at least 99½ per cent, 3.55 marks per 100 kilograms.

On all other sugars at least 98 per cent, 3 marks per 100 kilograms.

The countervailing duties on German sugar, as published by the Secretary of the Treasury, were taken directly from the German law. In regard to the French bounties, the calculations have evidently been based upon the actual yield in refined sugars, as determined by the statistics of the industry in France.

I wish to say here, Mr. Chairman, that what I am now going to read I wrote five years ago. It is from an article published in The Forum in July, 1897, before this question came up before this committee or before it was supposed that it would come up, and these are the words I used at that time:

"In order that a government may be enabled to pay either a direct or an indirect bounty the funds must necessarily be obtained by a tax on the sugar consumed. All fiscal legislation which provides for direct or indirect bounties must, therefore, be based on a tax upon the domestic consumption; and the tax must be proportionate to the magnitude of such consumption. It is evident that the funds available for this indirect bounty depend upon the ratio between the total production and consumption. In France the selling price of sugar for domestic consumption is determined by the duty on imports. If the manufacturer could dispose of his total product for home consumption, the amount of profit would be equal to the difference between the internal tax, the cost of production, and the tariff on foreign sugars. Now, if to this profit we add that accruing from the excess of the actual over the legal yield, we shall see that the manufacturer has two great sources of revenue, viz: (1) The difference between the internal and the tariff taxes, and (2) the rebate in internal tax arising from the excess of yield; this rebate alone being regarded as the true bounty. The total amount of sugar yielded in excess of that fixed by law varies with the richness of the beet in saccharine matter, and the efficiency of the process of manufacture; consequently only an approximate estimate of the profits obtained in this way can be made.

"The excess of production over consumption must either be carried as stock on hand or exported. The immediate purpose of the direct premium is to force this surplus into the export trade by offering it

to other sugar-eating nations at less than cost price, or at least at a price lower than that of rival dealers."

Now, that is the essence of the purpose of these bounties. It is to force into the markets of the world, at less than cost price, or at least at a price lower than that of rival dealers, this surplus of sugar; and this is the language I used five years ago:

"The producer in the country whence the sugar is exported not only 'pays the freight,' but also makes a contribution to the family expenses of the purchaser. Fortunately, in the United States taxes are not yet levied for the support of private families in other countries.

"The effect of the premium on exports of sugar is twofold. In the first place, it stimulates domestic production in the country in which the premium is paid, by securing a larger foreign market for the sugar produced. The high taxes in continental countries restrict the home consumption, and, unless an outlet be found, the limit of the industry is soon reached. By reason of the high premium received, exporters are enabled to undersell in the markets of the world those whose sugars are grown without the stimulus of a direct or indirect bounty. In the second place, the effect of the premiums on exported sugar is to cheapen its cost to the consumer in non producing countries, whereby the consumption in those countries is increased. The effect of the bounties is seen chiefly in England, which, in proportion to its population, is the largest sugar-consuming country in the world."

England until lately levied no import duty on sugar. It now has a duty of about 1 cent a pound.

Mr. McCLELLAN. That is a war duty, is it not?

Dr. WILEY. Yes; and they are speaking of raising it.

"Consequently, the price of sugars in the London market is not subject solely to the law of supply and demand, but is cheapened in direct proportion to the amount of premiums paid by continental countries. The result has been one of which, upon the whole, the English people have had no reason to complain in so far as the price of sugar is concerned; but, on the other hand, the English sugar refiners and the British sugar-producing colonies have been practically ruined by the continental system of bounties. Indeed, so great has been the distress produced thereby that, on various occasions, Parliament has seen fit to investigate the subject; and Parliamentary committees have not only debated upon it in London, but one such committee has recently visited all the principal colonial centers of sugar production."

That committee visited Washington, and was in consultation here quite a while on this very subject of which we are now speaking.

Now, this is the continuation of my paper. I call the particular attention of the committee to this quotation from the article above referred to as it was written five years ago, before the contingency which now faces the committee was ever thought of. The quotation is as follows:

"In this country the effect of the continental bounties is beginning to be seriously felt; and the situation has lately been rendered more acute by reason of the difficulties in Cuba, which island in the past has been our natural source of supply. The war has reduced the Cuban production, in round numbers, from 1,000,000 to 100,000 tons; and by reason of the great plethora of sugar in continental Europe, caused by the application of the bounty system, almost the whole of this deficit has been drawn from beet sugar producing countries. It is safe to say that at the present rate of consumption, our annual importation of

beet sugar amounts to 800,000 tons, an increase of 700,000 tons in three years."

Of course that condition has now largely passed away.

I will add one more quotation from the same article, since it bears on this question.

"The problem of foreign sugar bounties should not be difficult to solve. The nature and amount of these bounties, in the two principal sugar-producing countries of Europe, have been pointed out.

"Unless the other sugar-producing countries of the world take some restrictive action, it is hard to say where the policy which is now controlling European producers will lead them. Instead of diminishing, we see the premiums on exports increasing. France has met the direct bounty offered by Germany, and is prepared to go further. Other sugar-producing countries in Europe are clamoring for the same degree of support furnished by Germany and France. Unless an end is put to this 'merry war,' it may go on until sugar can be delivered in London at simply the cost of transportation, or at a still lower figure.

"It is not my purpose to discuss here the disastrous effects which such a course will eventually produce among the continental nations of Europe. It is sufficient to consider it in relation to our own policy, in order to ascertain how it will affect our interests. It is certain that the bounties under laws now governing the sugar industry in Europe, unless met by proper countervailing duties"——

Now, this was written some time before they were enacted——

"*Will check and eventually destroy that department of our agricultural industry which is so eagerly turning its attention to the production of sugar.*" (*Italics* not in original.)

The British delegates to the sugar conference which met at Brussels in 1898, in their report to Parliament, C–8938, Commercial No. 6, 1898, made the following summary in regard to the matter:

We do not consider it to be any part of our duty to discuss the economic aspects of the sugar bounty question, either in its bearing upon the United Kingdom or upon the British colonies. This branch of the subject has already received the careful consideration of Her Majesty's Government; but having given above a brief outline of the proceedings of the Brussels Sugar Conference, we desire to offer the following general observations upon the present position of the question from the international point of view:

Austria-Hungary, Germany, Belgium and Holland desire to effect a complete abolition of the bounties, and no opposition to an arrangement to this effect is to be apprehended from Spain and Sweden. France, however, while willing to abolish the direct bounty on export under her law of 1897, wishes to retain the advantange of the indirect export bounty created by her internal law of 1884; and Russia declines even to discuss whether her existing system amounts to a bounty on export or not.

Germany grants only a direct export bounty, which is, roughly speaking, about equal in amount to the direct export bounty granted under the French law of 1897; and although sugar can be produced cheaper in Germany than in France, it is not to be expected that Germany will consent to abolish the whole of her bounty while France retains that created by her law of 1884, which is about three times as much as the direct export bounty granted under her law of 1897. Austria-Hungary, on the other hand, contends that the Russian system does in fact amount to the grant of a bounty on exportation, and as Russia is her chief competitor in the sugar markets of Italy and the Levant, the Austro-Hungarian Government are not prepared to abolish their bounties unless some modification can be obtained in the Russian system.

It seems clear that in these circumstances there are but two methods of securing the suppression of the bounty system:

1. By coming to some arrangement for such modifications or limitations in the French and Russian systems as may be acceptable to the other sugar-producing States, in return for the suppression of their bounties.

At that time Russia claimed that she gave no bounty, and the first decision of our Secretary of the Treasury was to that effect, but when he came to investigate the matter, he found that Russia was giving a very large indirect bounty. We therefore countervail Russian sugars at the present time, as a result of that investigation.

2. By the conclusion of a convention between a certain number of the sugar-producing States providing for the total suppression of sugar bounties within their dominions, and engaging that they will either impose countervailing duties on, or prohibit the entry of, bounty-fed sugar coming from States which can not be induced to become parties to the convention.

That is going further than the English proposed to go, and further than we ever did. We only proposed to countervail; the English delegates proposed to prohibit the entry of bounty-fed sugar to the London markets.

This is what the English say about the market of the United States:

The market of the United States is already rendered unprofitable by this means to all bounty-fed sugar. All the continental sugar-producing States, by means of customs duties and internal legislation, reserve the entire supply of the home market to the home producer of sugar; and the English, and to a rapidly increasing extent the Indian, market thus becomes essential for the surplus sugar production of the European countries. Any steps by which these markets might be closed to bounty-fed sugar must, therefore, have a decisive effect in securing the speedy abolition of the bounty system.

That system is, however, now felt to press heavily on the economic resources of those States which have recourse to it, and it is not impossible that a further exchange of views may lead to some concessions by France and Russia which would form the basis of a general arrangement acceptable to all the sugar-producing States, as at least a mitigation of the unsatisfactory system which at present prevails. If no solution can be obtained, it is possible that a still worse state of affairs may result by the increase of bounties in various countries.

This is the end of the English quotation.

Another international conference in relation to sugar bounties is now in session at Brussels, as you all know. The English delegates have at last awakened to the necessity of doing something for their own colonies, and, following the example set by the United States, are proposing to establish countervailing duties upon bounty-fed sugar imported into Great Britain, equivalent in magnitude to the bounties, both direct and indirect, which such sugars receive. This is rendered all the more easy because since the last Congress England, for the purpose of raising revenue, has laid an import duty upon sugar equal to about 1 cent per pound, a duty which it is seriously contemplated to raise at the present session of Parliament. Thus, at last, the English Parliament sees its way clearly to doing something for its own tropical possessions, by doing what simple justice has long demanded, viz., protecting her own markets, at least to the extent of the absolute bounties paid, in the interests of her own colonial producers.

It is evident from the above discussion of the bounty system, and also from the amount of countervailing duties levied by the Secretary of the Treasury, under the law, against such sugars, that the actual price of raw sugars in the markets of the world is to-day at nearly five-tenths of a cent below its legitimate limit, due solely to the bounties which have been paid. Thus the abolition of these bounties by international agreement, or their practical abolition by reason of the United States and Great Britain levying a countervailing duty against them, would be equivalent to raising the price of raw sugars nearly half a cent a pound, and thus affording in a far more effective manner

than that proposed before this committee some alleviation to the producers of sugar, not only in the United States, but also in Cuba.

Another difficulty which the producers of raw sugar for legitimate markets have to contend with is the so-called "cartel," lately formed in Germany and Austria for the purpose of controlling the output of refined sugars in those countries by fixing a minimum price which raw sugar sold for refining for home consumption should receive. This combination is perhaps best described as what we know as a trust, and we are informed that it has among its members at least 95 per cent of all the raw-sugar producers of those two great countries. The basis of this combination is the prohibitive customs tariff which is laid upon sugars entering both Austria and Germany. For sugar imported from foreign countries to Germany this prohibitive tariff amounts, in round numbers, to almost $100 per ton, which is almost 5 cents per pound; that is, it is 40 marks per 100 kilograms, and the ton is 1,000 kilograms. That makes 400 marks for 1,000 kilograms, which is 2,205 pounds, or almost $100 a ton. For general purposes it may be stated that it is $100 a ton, or 5 cents a pound. That is the duty, as I said a while ago, on imported sugars.

In addition to this an excise duty is collected on sugar for home consumption, amounting to about one-half this sum, or 2½ cents per pound. It is this difference between the excise tariff and tariff on importation which makes it possible for the sugar refiners of these countries to artificially raise the prices of sugar to home consumers.

It is evident that this difference, amounting to 2½ cents per pound, can be completely controlled by a combination which practically includes all the sugar producers and sugar refiners. Under the "cartel," the refiners guarantee to the makers of raw sugar a price of 12.75 marks per 50 kilograms for home consumption. Since a mark is almost exactly 24 cents, and 50 kilograms almost exactly 110 pounds, it is not difficult to produce this price in pounds, viz, 2.78 cents per pound. The difference between this price and that which is paid at Magdeburg, as the regular market price for export, is a most remarkable one.

From the Centralblatt für die Zuckerindustrie, published at Magdeburg, on the 11th day of January, 1902, I take the following quotation of the market price of sugars for export at that city on the 9th of January. The price, on the 9th of January, at Magdeburg, was 6.40 marks, while the price guaranteed to the home consumer was 12.75 for 50 kilograms. The difference between this price for export and the price guaranteed the seller of the same sugar for refining for home consumption would represent the sum of all the bounties paid on the sugar. This difference is 6.35 marks. The direct bounty on which we countervail is 1.25 marks.

Mr. McCLELLAN. Doctor, let me ask you right here this question: Is Magdeburg the great sugar center of Germany?

Dr. WILEY. It is the great sugar center for the making of sugar. Magdeburg is in the heart of the beet-sugar region of Germany. Hamburg is the market for export sugar; Magdeburg is the market for home sugar.

Mr. RICHARDSON. Doctor, how do they settle the question as to who shall furnish the sugar for home consumption and get this high price of which you speak?

Dr. WILEY. Each maker gets his percentage.

Mr. RICHARDSON. One-third of his crop?

Dr. WILEY. About one-third of the whole amount is apportioned; that is, the amount used in home consumption is apportioned to all the makers. They all have their share of it.

Mr. RICHARDSON. About one-third?

Dr. WILEY. It is about one-third of their product in round numbers.

Mr. RICHARDSON. Then what do the producers do who are not in this "trust," so to speak?

Dr. WILEY. Well, they have to hustle for themselves.

Mr. ROBERTSON. There are only 5 per cent of those, you say?

Dr. WILEY. Only about 5 per cent at the most. They may be all in this "trust;" but certainly 95 per cent of them are in it.

The CHAIRMAN. They probably skirmish around for a market.

Dr. WILEY. Well, they will have a little difficulty in getting at the home market. This is another feature of the cartel. Each one of these próducers of raw sugar pledges himself not to make any sugar for direct sale. He makes nothing but raw sugar for refining. Our beet-sugar manufacturers sell 72 per cent of their product directly to the trade at their doors. The German beet-sugar manufacturer does not dare sell a pound. He is under this contract, and if he sells a pound of refined sugar to the trade he loses his contract.

Mr. DALZELL. Has the Government any connection with these cartels?

Dr. WILEY. I am coming to that in a moment. That is a very important part of this question and one which the committee will have to seriously consider.

As I was saying, Mr. Chairman, when German raw sugar is imported into the United States it pays a countervailing duty of 1.25 marks per 50 kilograms, just half of the amount for 100 kilograms, which is 2.50. So that whatever of that sugar is brought into the United States pays the regular duty under the law, and pays in addition 1 mark and 25 pfennigs countervailing duty, due to the German direct bounty.

Mr. DALZELL. How much is that in United States currency?

Dr. WILEY. A mark is 24 cents, and 25 pfennigs is a quarter of a mark. That would be 30 cents for 110 pounds as countervailing duty in addition to the regular duty.

Now to get at the amount of indirect bounty. Of course you understand, gentlemen, and it is not necessary for me to say to you that the object of this cartel is to pay an indirect bounty. That is what it is formed for. They can not come into this country under the direct bounty, because we countervail it cent for cent, and they get no benefit from it. This cartel then was formed simply to draw the wool over our eyes and get their sugar in here under a great bounty which they claim we can not countervail.

The CHAIRMAN. When did they form this cartel?

Dr. WILEY. In June, 1900.

To get the amount of indirect bounty which comes from the operation of the "cartel" we simply subtract the direct bounty on which we countervail, viz, 1.25, from the total bounty, viz, 6.35, and we get as a result 5.10 marks as the indirect bounty received by 110 pounds of sugar for export to the United States. Multiplying this by 24 and dividing by 11 gives 1.11 cents per pound. This is the apparent bounty due to the "cartel" on the sugar exported; but the real amount of this bounty is only determined by considering the ratio between the total production in Germany and the home consumption. All the

estimates of German production agree in stating that it is almost three times the home consumption. Without going into further calculations, we may safely presume that the ratio of export to consumption is as 2 to 1. Therefore the apparent bounty of 1.11 cents per pound must be divided by 3 to allow for the whole crop produced in Germany, making a real bounty of 0.37 cent per pound.

The effect of the "cartel," therefore, is to pay an indirect bounty of nearly four-tenths of a cent per pound on every pound of raw sugar exported from Germany. Now, the direct bounty on this sugar which is countervailed by our present law is 0.275 cent per pound. In order to fully protect our markets, however, the indirect bounty should be added to this, making a total bounty which should be countervailed of 0.675 cent per pound. The Secretary of the Treasury to-day, gentlemen, ought to collect that countervailing duty against every pound of German sugar imported into the United States.

Mr. DALZELL. How much does he collect?

Dr. WILEY. Nearly 0.7 cent per pound.

Mr. NEWLANDS. That is what you say he ought to collect. How much does he now collect?

Dr. WILEY. I did not understand your first question. Twenty-seven one-hundredths of a cent. He should collect 0.67 in order to protect our markets.

Mr. ROBERTSON. Suppose we were to do that—would that help Cuba out?

Dr. WILEY. Yes, sir; it would help Cuba out, for the reason that it would raise the price of raw sugar all over the world by exactly that amount. Our refineries are not going to pay five-tenths of a cent a pound more for sugar unless they have to. They do just as we would do if we were in the business, and get it where they can get it cheapest.

Mr. RICHARDSON. Would not Germany make another cartel if this course were taken?

Dr. WILEY. Then we would countervail it. We can make just as many countervailing duties as she can make cartels. There is no difficulty at all about it.

Mr. ROBERTSON. The law would permit it, too, would it not?

Dr. WILEY. Well, I am not a lawyer.

Mr. ROBERTSON. I mean our tariff law would.

Dr. WILEY. That is a question which you gentlemen must decide. If it does not permit it, you can amend it.

This simple illustration will suffice to show, without going into further detail, the effect of the cartel upon the world price of sugar; it has simply diminished it by four-tenths of a cent a pound the world over.

On the face of the cartel it would not seem probable that the magnitude of the bounty would be as great as represented above. On the 1st of June, 1900, when the cartel went into effect, it was not foreseen that the price of raw sugar would fall to the point it has now reached. For this reason the terms of the cartel as originally drawn did not guarantee a greater sum than 3.40 marks benefit to the maker of raw sugar. In other words, should the price of raw sugar go below 9.35 marks per 50 kilos, the loss would have to be borne by the producer and not by the cartel. If, for instance, raw sugar should sell for 8 marks per 50 kilos, only 3.40 marks would be absolutely guaranteed instead of 4.75.

Thus, from the terms of the cartel, as at first established, the bounty to the producer could not exceed 3.40 marks per 50 kilos in any case. It seems perfectly certain, however, that greater bounties have been granted corresponding to the unexpected decline in price produced chiefly by the operation of the cartel itself. For instance, on the 21st of last November the price of German refined loaf sugar in London was 20s. 6d. for 100 kilos. Converting, for convenience, into marks we have:

	Marks.
Price of refined sugar in London	20.62
Direct bounty on export	3.55
Excise duty	20.00
Total	44.17

The legitimate price of this sugar, therefore, to German consumers on that date was 44.17 marks. But in reality the German wholesale price fixed by the cartel on that date was 56.90 marks per 100 kilos. The total exaction of the cartel, therefore, was 56.90—44.17=12.73 marks per 100 kilos, or $3.06 per 220 pounds, equivalent to 1.39 cents a pound.

The most striking effect of the operation of the cartel is found in the relative effect it has had on the price of refined sugars in the London and Magdeburg markets. For convenience the comparison is given in our currency for 110 pounds, from the time the cartel first began to make itself felt in the world's markets, viz, June, 1900, to December, 1901:

Price of granulated sugar per 110 pounds.

	June 1, 1900.	Dec. 1, 1901.
London	$2.40	$2.10
Magdeburg	6.07	6.82

No argument could be more convincing than the above comparison. The cartel has enormously raised the price of sugar to home consumers to the extent of 12.4 per cent, and thereby has secured a corresponding reduction in the price to the English consumer, viz, 12.5 per cent.

According to the Journal des Fabricants de Sucre for December 25, 1901, from June 1, 1900, to December 1, 1901, the total sum exacted from the German people by reason of the cartel is 150,000,000 francs, or nearly $30,000,000. Of this sum about $10,000,000 has been paid to the producers, and the rest has remained with the refiners. But this journal adds:

> But since it (the cartel) has not yet paid over all the bounty due the makers of raw sugar, the benefits are superior to that figure. In fact, the German refiner, like his brother in Austria, is the principal beneficiary of the cartel.

Apparently the sugar refiner the world over (and what may be said of him in one country is applicable to *id omne genus*) looks out for "the main chance."

As a further proof that I have not placed the bounty due to the cartel too high, I will give the calculation of the Journal des Fabricants de Sucre for January 1, 1902:

> To consider the bounty *en bloc*, it can be said that since the beginning of the cartel, June 1, 1900, up to the end of November, 1901, the extraordinary levy on consump-

tion in Germany was 158,898,750 francs. If we compare this sum with the quantity of raw sugar exported during the same period, viz, 1,560,804 tons, it is seen that the cartel has taxed German industry 10 francs for every 100 kilograms of sugar exported. To this bounty must be added the direct premium on the quantity exported, viz, 46,824,120 francs, and the total bounty on the 1,560,804 tons amounts to 205,723,000 francs. It is objected to this statement that the books of the cartel show that during the period named only 19,782,167 marks were paid to the raw-sugar makers. Not having these books, it is difficult for us to know how this figure is established; but if it is exact, that does not discredit our own figures, viz, those resulting from the mode of calculation indicated by the promoters of the cartel themselves. It proves only that the refiners have kept the lion's share.

It is a proper supplement to this argument to say (and I think I am not betraying any confidence in saying this) that the public and private cables from Brussels indicate that the English representatives at the conference now sitting in Brussels to discuss bounties, both direct and indirect, on sugars have announced, by authority of their government, that if these bounties are not abolished England will follow the lead of the United States, and will place a countervailing duty on sugars imported into Great Britain equivalent to both the direct and indirect bounties which they have received.

I may say here that I think it is a great mistake, Mr. Chairman, that the United States has no representative in that conference.

It is evident that the magnitude of the bounty due to the cartel will always depend upon the ratio of production to consumption in the countries where the cartel exists. For instance, if Germany to-day consumed as much sugar as the United States the cartel would have absolutely no effect upon the price of export sugars, because then her production would just equal her consumption, and the price of sugar to the consumer would be the cost and profit of production and a part of the margin between this sum and the import duties on foreign sugars. But it is evident from the high bounty already existing in Germany, and the rapid progress which her beet-sugar industry is making, that the bounty arising from the cartel will continue to increase rather than diminish. It is possible that the cost of sugar to the consumer in Germany can be increased to the extreme limit of the difference between the excise and import tax, viz, 2½ cents per pound; and if the cartel should push its power as far as this the consumption of sugar in Germany would doubtless be greatly diminished. At the same time the stimulus which this action would give to production by enabling German producers to undersell all their competitors in the world markets would increase the output of sugar. Thus the evil which the cartel bounty would produce tends to increase rather than diminish by its own operation, and this evil influence will continue to be felt more and more oppressively until the great sugar-consuming nations of the world, viz, England and the United States, take such concerted action as will at once and forever annihilate all forms of bounty, direct and indirect.

Mr. RICHARDSON. If we were to meet that cartel by a countervailing duty, they might increase their cartel again, which would necessitate our meeting that increase, would it not?

Dr. WILEY. They could only increase it up to the difference between the excise and the import tax. They could not go beyond that, unless they changed their own law. They could never increase it more than 2½ cents a pound.

I will explain that. Even if they used their power to the fullest extent that they could under the German law, they could never

increase it to more than that amount to home consumption. Of course, if they raised the price of sugar for home consumption above the import tax, other countries would send sugar into Germany; and therefore they are limited by the amount of the import tax. But I am sure that Germany, as soon as she finds that we are "onto the game" (if I may use that expression before this dignified body), would give it up. It would be a useless contest on her part, of course.

Mr. RICHARDSON. In the meantime the price of raw sugar would be put up, would it?

Dr. WILEY. If the cartel is abolished the price of raw sugar will go right up, in the markets of the world, four-tenths of a cent a pound.

Mr. RICHARDSON. Then the consumer will have to pay more for his sugar?

Dr. WILEY. Well, we ought to pay the legitimate price of sugar. We do not want to buy our sugar below cost. Nobody wants to get alms in a matter like this. I am sure everybody is willing to pay the legitimate price of sugar.

Mr. RICHARDSON. I thought the contention was that sugar could be produced at a cheaper rate.

Dr. WILEY. That is not the question I am discussing here; that is another question altogether.

Mr. RICHARDSON. That question naturally presents itself.

Dr. WILEY. Yes, in another part of this paper; and I will probably take it up later on if you are not wearied with me already.

Mr. RICHARDSON. Not at all.

Dr. WILEY. From the foregoing résumé it is seen that the low price of sugar prevailing over the whole world is the result of two causes. The first is a perfectly legitimate cause, namely, the cheapening of the price of production by the application of a scientific process of agriculture in the production of the raw material and the application of a more perfect technique in the factory, coupled with a remunerative disposition of by-products. This kind of sugar cheapening is to be universally commended, since it results alike to the benefit of the sugar maker and the sugar consumer.

The second cause for the low price of sugar is overproduction resulting directly from the application of the direct and indirect bounty system, which has already been described. This is a form of cheapening sugar which is universally reprehensible, since in the end it will prove disastrous both to the maker and the consumer of this article.

The application of import duties on sugar by various countries never tends to reduce the price of sugar, but always to raise it. Hence the argument against a protective tariff as the cause of a low price of sugar is illogical and based upon an entire misapprehension of facts. It follows as a logical conclusion, therefore, that the people who come to this committee for relief from the low price of sugar should strike at the true cause, not the false one, of the evil of which they complain.

Mr. RICHARDSON. Would a protective tariff, absolutely prohibitory in its nature, cheapen sugar in the United States?

Dr. WILEY. No; I have just said that a protective tariff raises the price of sugar to the consumer, but I am speaking of the price of raw sugar—duty-free sugar. The price of duty-free sugar has never been depressed by a protective tariff; it has always been raised, if anything.

Mr. RICHARDSON. Yes.

Dr. WILEY. Therefore if you are complaining of a low raw-sugar price, it is not due to a protective tariff at all; so to argue that the tariff should be taken off to correct that price is what the logicians call a *non causa pro causa.*

Mr. RICHARDSON. The protective tariff increases the price?

Dr. WILEY. Certainly it does. Everybody knows that.

Mr. RICHARDSON. They ought to know it, but they do not.

Mr. ROBERTSON. It is cheaper now, though, than it has been for years.

Dr. WILEY. That is due to other causes; it is not by reason of the tariff.

Mr. ROBERTSON. No; I only wanted to state that that is the fact.

Dr. WILEY. In the case of Cuba, for instance, it is admitted that in former years the sugar industry was profitable in the island, yet import duties levied by the United States were in existence. The Cuban sugar planters were prosperous under the Spanish régime. Why do they not now lay their misfortunes to the breaking of the Spanish yoke? That seems to be the only political and fiscal condition which has changed in the island. If it be true that their disasters have been as great as has been portrayed, and if we are seeking to benefit Cuba, let us lead her back to Spain, and apologize to that country for having spent hundreds of millions of dollars and thousands of lives for the purpose of bringing the whole island to the verge of bankruptcy. [Laughter.]

When as a boy I studied logic, I was particularly cautioned by the professor to avoid the error of *non causa pro causa.* This is an admonition which the advocates of reduced duties on sugar should take to heart. The cause of the trouble they are fighting is not the tariff duties of the United States, but the overproduction of sugar due to bounties granted by European countries. Their cause should be pleaded in the parliaments of Europe, not in that of America; their plaints should go before the Reichstag, the Bundesrath, and the Corps Législatif, and not before the American Congress. The place to plead their cause is before the Congress of Brussels, not before the Ways and Means Committee of the Congress of the United States.

It is impossible to see where the granting of free sugar will help them in the least as long as the conditions which threaten the sugar industries of all countries continue to exist. Under legitimate trade conditions, demand and supply regulate this matter. Take the bounties from sugar, and one large crop overstocking the market will be neutralized by a short one, and the equilibrium will be restored; and thus an average, fair, remunerative price for raw sugar will be maintained throughout the world.

Continue the bounty system, and no reduction of duty, no reciprocal favor will ever be able to establish the legitimate price for raw sugar. Hence all the arguments for reduction of duties are based on false premises, and absolutely fall when the props which are holding them are removed.

Mr. NEWLANDS. Professor, do I understand you to contend that if the duty on Cuban sugar alone were absolutely removed, the Cuban would not get a higher price for his sugar?

Dr. WILEY. Yes, temporarily; but he would not permanently, as long as the bounty system continues.

Mr. NEWLANDS. He would not?

Dr. WILEY. No, sir.

Mr. NEWLANDS. If to-day that duty of 1.68 were removed?

Dr. WILEY. He would not permanently get a penny above the Magdeburg price for raw sugars so long as that immense surplus exists.

Mr. NEWLANDS. It would be the Magdeburg price with the duty added.

Dr. WILEY. Yes; I understand that. That is a question which I have not gone into at all. My argument is that as long as you continue this false overproduction, the overproduction due to these stimuli which ought not to exist and which are unjust to the whole world, you can not get any effective remedy for any sugar industry anywhere except by countervailing.

Here is what Sir Nevile Lubbock, the highest expert of Great Britain, says:

The customs duty on sugar imported into Germany is £20 per ton, while the excise duty is £10 per ton. In the case where the production is in excess of the home consumption it is thus possible, by joint action on the part of all producers, to maintain a price of sugar £10 per ton above the export price plus the excise duty. Does this amount to an indirect export bounty such as can be taken in view by the Brussels conference?

Now, that is his question. Then he answers it:

Theoretically, where the customs duty exceeds the excise duty, there are three conditions possible:

First. The production may be below the internal consumption.

Second. The production may be just equal to the internal consumption.

That is why I took that question up a moment ago in regard to Germany. If she consumed as much sugar as she produces this system would not exist.

Third. The production may be in excess of the internal consumption:

1. In the first case no cartel would exist, since the price would of necessity be the external price plus the customs duty. This is now the case in the United States.

2. In the second case, if the production was in one hand, clearly no combination would be necessary, provided that the one producer had no competition to fear; but this is a state of conditions which nowhere exists. Obviously, if the profit was no more than that which is barely sufficient to keep the industry going, there would be no competition; but if the profit was in excess of this, competition would commence, and the production would at once become in excess of the consumption.

This excess would have to be exported, either with a diminished profit or with a loss. The excess would and must, economically, go on increasing until the amount of loss on the excess exported reduced the profit made by the portion of the production sold internally to such a sum as together with the profit or reduced by the loss on the export was merely sufficient to maintain the whole production.

The profit fund derived from the internal sales must be drawn upon to raise the profit, or to make good the loss, on the exported portion.

It must be admitted that a producer who exports sugar below his cost of production, plus the necessary profit, and who receives from any fund a payment which recoups to him the difference between the export price and such cost of production, receives a bounty.

3. The third case is that which has arisen. Germany produces 2,100,000 tons and consumes about 750,000 tons. Theoretically, all we need say is that she would not continue to produce this quantity, as a whole, unless the necessary profit, to which I have alluded, was received on the whole production. But practically it is a valuable object lesson. The present export price of German sugar is £7 5s. per ton. The price of the same sugar for home consumption is, exclusive of duty, £12 per ton. The cost of production, all round, may be taken at £9 per ton. The bounty on export sugar, irrespective of the cartel, may be taken at £1 5s. per ton. All these figures are approximations, but they are near enough for the present purpose.

It will at once be seen that the exporter is losing 10s. per ton on all the sugar he exports. Thus:

	£	s.
Price realized	7	5
Add bounty	1	5
Together	8	10
Cost of production	9	0
Loss		10

On the other hand, he makes a profit of £3 per ton on what he sells internally. Thus: Price, £12; cost of production, £9; profit, £3.

Now, what is the position of the industry as a whole?

We have 750,000 tons sold at a profit of £3, £2,250,000, and 1,350,000 tons sold at a loss of 10s., £675,000; net profit, £1,575,000, or about 15s. per ton on the whole production.

It is evident here that the loss on the export is paid for by the profit under the cartel.

It may be said that the cartel is, after all, a private arrangement with which the conference can not interfere. But this is not so. The cartel is only possible under conditions *which the Government only can create,* viz, an appreciable difference between the customs duty and the excise duty, or a high customs duty and no excise.

The remedy is that exporting countries shall undertake that their customs duty shall not exceed their excise duty. In the case of any country which produces more of a commodity than it can consume, and in consequence has an excess of production which must be exported, protective customs duties have no effect in raising the price to the consumer and thus operating as protection, except in the case of a combination such as the cartel. If, therefore, they have any *raison d'être* it can only be to make possible the formation of a cartel. Hence, in such a case, the Government is not only *particeps criminis,* but the *fons et origo mali.*

Mr. McCALL. Now, Professor, could not Germany claim, according to your reasoning, that we give an indirect bounty on the exportation of steel? For instance, suppose steel goods which are manufactured here under a protective tariff and no internal tax are exported at less than their cost, and the steel producers are enabled to do that by reason of the bounty that they get from a protective tariff. The difference between the internal-revenue tax, which in that case is nothing, and the duty on steel will measure this indirect bounty, will it not, in the case of the exportation of steel?

Dr. WILEY. Well, I could not go into that subject; but I——

Mr. McCALL. Is it not the same principle? Would not Germany, for instance, claim that we were giving an indirect bounty to the exportation of manufactured steel?

Dr. WILEY. Under our own practice, Germany would have a perfect right to put a countervailing duty on that steel, if it could be shown that that were the case; and she would be justified, in my opinion.

Mr. McCALL. I am not finding fault with your argument at all. I simply am trying to get the principle of it, and apply it.

Mr. STEELE. She could do that now if she wished.

Dr. WILEY. Now, here is the close of what Mr. Lubbock says:

"It is thus quite clear that unless some action is taken to put an end to the cartel system, the abolition of direct Government bounties might be quite nugatory."

The Governments might abolish their direct bounties which we now countervail; that is, Germany might abolish the bounty of 2.50 marks against which we countervail and still send us sugar with a premium

of four-tenths of a cent a pound. That is Lubbock's principle, which he states here:

> It is thus clear that unless some action is taken to put an end to the cartel system the abolition of direct Government bounties might be quite nugatory, since while abolishing the direct bounty with one hand it would be easy to give an equivalent bounty with the other by means of the cartel system.

Another point on which I was asked to speak before the committee was the possible production of sugar under free trade in Cuba and other tropical tributaries of the United States.

That the sugar industry of Cuba would be greatly stimulated at least temporarily by free trade with the United States is admitted by all witnesses who have given opinions on that point. We have an admirable illustration of this stimulus in the case of the Hawaiian Islands. At the time of the adoption of the reciprocity treaty with the Hawaiian Kingdom, September 9, 1876, the total production of the islands was but little over 10,000 tons, at which figure it had practically remained without material increase for many years. In less than three years the output had doubled, and the rate of increase continued to be rapid until the overthrow of the monarchy and the establishment of the protectorate of the United States. By the terms of the treaty, on April 30, 1900, the Hawaiian Islands became a Territory of the United States; and this political assimilation gave a renewed impetus to the industry.

In the following table are given the records of the production of sugar in the islands from 1875 until the present time:

Hawaiian sugar industry, 1875–1902.

[Tons of 2,240 pounds.]

Year.	Sugar exported.	Year.	Sugar exported.	Year.	Sugar exported.	Year.	Sugar exported.
	Tons.		*Tons.*		*Tons.*		*Tons.*
1875	11,152	1882	50,972	1889	108,110	1896	198,022
1876	11,635	1883	50,941	1890	115,977	1897	232,213
1877	11,418	1884	63,685	1891	122,761	1898	198,644
1878	17,157	1885	76,496	1892	117,690	1899	243,469
1879	21,884	1886	96,528	1893	147,689	1900	258,521
1880	28,386	1887	94,983	1894	136,913	1901	321,461
1881	41,870	1888	105,307	1895	131,600	1902	[a] 516,000

[a] Louisiana Sugar Planter, January 25, 1902. (Estimate.)

NOTE.—Data for 1875 to 1899 from reports of Hawaiian custom-house; for 1900 and 1901 the data are taken from the report of the Hawaiian sugar crops found in Willett & Gray's Journal for December 12, 1901.

The total increase in production of the islands for the twenty-six years of free trade is 2,782.5 per cent, and the mean annual increase 107 per cent. If the yield for 1891 is taken as the basis of comparison, we find an increase for the ten years from 1891 to 1901 of 161.9 per cent, or a mean annual increase on the yield of 1891 (122,761 tons) of 16.2 per cent.

The average tonnage per acre in the islands is 40, and the yield per ton 250 pounds, making the phenomenal yield of 5 tons of sugar per acre. Since, however, the crop is a biennial one, the annual yield is only 2½ tons per acre. In 1897 125,000 acres of land were devoted to cane growing.[a]

[a] Yearbook, Department of Agriculture, 1898, p. 567.

To allow the same rate of increase to Cuba would be a most conservative estimate of the growth of the industry there under conditions similar to those which have obtained in Hawaii. On a crop basis of 1,000,000 tons, it is certain that under free trade the Cuban crop will increase at least 162 per cent in ten years, and the yield in 1911 would not fall below 2,620,000 tons. In this estimate it is assumed that the Cuban industry would have to contend with the same or equal difficulties which have attended the development of the industry in Hawaii; but the natural conditions in Cuba are very much more favorable than in the Hawaiian Islands. The area suitable to cane culture is vastly larger in Cuba. No irrigation is practiced; no volcanic deposits are to be reduced or removed; up to the present time no fertilizer of any commercial importance has been required; frequent planting of the cane is unnecessary; cultivation of the fields is almost unknown; in fact, every advantage of nature and every bounty that she grants to agriculture exist in unequaled profusion in that favored clime. Were I indulging in reasonable prophecy therefore, instead of confining my propositions to hard statistical facts, I should not hesitate to predict that the growth of the sugar industry in Cuba in the ten years of free trade toward which we look would be almost double that given. What the total production would be were Cuba exploited with the same science and skill which are displayed in Hawaii, no man could predict, without being exposed to criticism as an extravagant optimist.

Cuba, exclusive of its adjacent islands, has an area of nearly 43,319 square miles, or 26,164,776 acres. In size it approximates the State of New York, and thus is an empire in itself. From Clark's Commercial Cuba, page 70, we find that "the major portion of Cuba's extent is neither mountain nor swamp, and with slight exaggeration the whole island may be said to rise in terraces which often have broad steps." From our best authorities on geography it is evident that the area of Cuba which is arable is a very large percentage of the whole extent.

Modern science is largely independent of soil; it asks only for climate. If the old Grecian philosopher could say, "Give me a $\pi o \upsilon \ \sigma \tau \omega$ and I will move the world," the modern scientific agriculturist can say, "Give me a climate and I will feed the world."

What has been done in Hawaii is an illustration of what may be done in Cuba. Acres which were deemed desolate have been recovered for agricultural purposes and brought to the highest state of fertility. Just what percentage of the 26,000,000 acres of Cuba can be placed in cultivation is not known with definiteness, but it is certainly a very large percentage. Swamps and forests no longer have any terrors for the agronomist, and those areas once regarded as impracticable for agricultural purposes have often been shown to be the most fertile and the most profitable.

It is hard to say just what acreage is now under cultivation for sugar cane. We are told by reliable authorities that 30 tons per acre is not above the average yield of cane, and 200 pounds of sugar per ton not an unusual quantity. It thus appears that an acre of sugar cane in Cuba will yield 6,000 pounds of sugar, or 3 tons. If this be the case, the acreage necessary to produce a million tons is not much above 300,000 acres. A million acres, one twenty-sixth of the area of Cuba, will produce 3,000,000 tons of sugar.

According to the Cuban census of 1899, there were approximately 8,800,000 acres of land in Cuba under cultivation, and the number of acres in sugar plantations is given as 400,000, approximately. The possibilities of sugar production in Cuba are therefore apparently unlimited, or limited only by the demands of the markets of the world.

But the temporary benefit to Cuban planters would undoubtedly diminish in proportion to the increase in their supply of our consumption, and when this point is reached, viz, when the Cuban output, joined with our own, supplies consumption, it would disappear altogether. By that time there would not be a vestige left of our present industry in the States, and the condition of unremunerative prices of raw sugar which now confronts us would again be established.

The question has been asked here before the committee, "What effect would the granting of free sugar to Cuban growers have on the sugar industry in the United States?" The true answer to this question would give the key to this problem which is now under discussion.

The consensus of opinion, both on the part of those who favor the removal or reduction of the duty and of those who oppose any change whatever, is that free Cuban sugar would end in the complete destruction of both the cane and beet industries in this country. The death of these industries, in the opinion of some of the witnesses, would be sudden, while others think the blow would not prove immediately fatal, but that the patient might live for a time in a semiconscious and partially paralyzed state, only to succumb at last. Free sugar would, in other words, be a true apoplexy to this now growing giant. It would not be what the doctors call idiopathic in its etiology, the result of age and decay in hardening and weakening the coats of the cerebral arteries, but it would be traumatic in its character—a blow beneath the ear or on the point of the jaw—rendering the patient unconscious, and probably producing immediate death, or at best leaving the patient with a clot on the brain, paralyzing at least half of his body, and making the sorry remainder of his life a burden to himself and his friends. [Laughter.]

In the fullness of years, after a busy life of effort and accomplishment, there is perhaps no end more fitting than the sudden summons that, by ruptured artery and forming clot, bids the worker who has finished his task lay down his burden ere yet his powers of body and mind have failed. But it is quite otherwise when the unexpected accident or the directed blow lays low the youth in the commencement of his work. It seems perfectly certain that if Cuban sugar be given free entry to our ports, not another dollar will go from the banks to sugar factories, not one to the farmer to enable him to plant and cultivate his crop, not a new boiler or a new mill will go into the sugar houses of Louisiana, not another factory will be built in the vast area shown by Exhibit B, on our northern border. Perhaps there will be some feeble efforts to save the remnant of the wreck by trying to do something with the investments already made and the contracts already signed. These efforts, however, will not be the telling work of the young giant, but the feeble and aimless endeavors of the paralytic. In the opinion of all the competent witnesses, there would be no possible chance for the existence, much less the continued development, of the industry.

The evidence in Exhibit A shows that the present cost of making refined beet sugar in the United States is not less than 4 cents a pound. The cost of producing fair refining centrifugal sugar of 96 polariza-

tion in Louisiana is not less than 3½ cents a pound, and this probably is too low. The most reliable study of the conditions in Louisiana shows that it costs, on an average, $42.50 to produce an acre of cane. This includes the rent of the land, the wear and tear of farm animals and machinery, the labor, cost of seed and fertilizers, and all other costs. The average yield of stubble and plant cane together may be taken at 17.5 tons, though this is probably a little in excess of what is actually obtained over the whole State. The cost of harvesting and marketing the cane—that is, delivering it to the factory—is at least 85 cents a ton. It is only fair to allow the grower of the cane 25 cents a ton profit. If he does not get at least this much he will have no encouragement to stay in the business and will leave it. Thus the total cost of a ton of cane laid down at the factory, in Louisiana, is at least $3.53.

(At this point the committee took a recess until 2 o'clock p. m.)

AFTER RECESS.

At the expiration of the recess the committee resumed its session.

STATEMENT OF DR. HARVEY W. WILEY—Continued.

Dr. WILEY. At the time of adjournment I was speaking of the cost of producing cane in Louisiana and laying it down at the factory, which, according to the figures I have given, is at least $3.53.

A very common method of paying for contract cane in Louisiana is a certain percentage of the price received per pound for yellow clarified sugar. This ranges from 80 to 95 cents per ton of cane for each cent that prime yellow clarified sugar brings in the New Orleans market. For instance, if this prime yellow clarified sugar brings 3 cents a pound, the planter would receive from $2.45 to $2.70 per ton for cane. Thus it is seen that the price of yellow clarified sugar must be above 3 cents or else there will be an actual loss to the cane grower in the making of his crop. In order to secure the $3.53 necessary to cover the cost of production and a profit of 25 cents a ton, it is necessary that yellow clarified sugar sell on the New Orleans market for 4⅛ cents a pound.

Hence it follows that a reduction in the price of sugar below these figures must result in the extinction of the industry, unless the cost of production be correspondingly diminished.

We have heard from the witnesses from Louisiana that the price of sugar in that State, within the memory of some of them, has been as high as 10 cents a pound. We need only go to the statistics of sugar prices to see the gradual reduction in the price of duty-free sugar which has been going on now for nearly six hundred years; in fact, since the date when quotations of this price were first made.

The important question now arises, "May not the price of production be diminished to meet the fall in prices which Cuban free sugar would produce?" I myself have long been a believer in lower and yet remunerative prices for sugar and have stated that the amount of sugar produced in Porto Rico, the Philippines, and Cuba in 1899–1900 could be introduced duty free without danger to our own industry. These prices would be the result of better agriculture, improvement in the sugar content of the raw materials, improved technique in the factories, resulting in economy of fuel, saving of labor, and more prof-

itable utilization of by-products. As a prophet, I have looked forward to the time when the cost of making refined sugar would not be quite 3 cents a pound in this country, and when, with fair profits to farmers, makers, and factory, it would go on the consumer's tabe at less than 4 cents a pound.

I do not now despair of seeing the fulfillment of this prophecy if our legislators are as wise (and I believe they are) as our farmers are industrious and our manufacturers skillful. But there is a natural limit to legitimate low prices which no skill can depress, no economy transgress. The young man who has a talent for the piano can at first make splendid progress in his art, but the time soon comes in his career when any additional refinement of touch and expression costs months of weary labor. Finally all his efforts enable him only to maintain the mastery he has acquired. So the efforts to secure remunerative yet low prices in sugar production were at first exceedingly fruitful, but now have reached a stage where any further achievement means the highest effort which the best business and scientific talent can put forth. The movement of legitimate prices downward will no longer be by leaps and bounds. More work will have to be done to take off a sixteenth of a cent now than was necessary to remove a cent sixteen years ago.

Another question which has been discussed before this committee is, How far can the reduction in the price of Cuban sugar go without injury to the American industry? There are two legitimate answers to this question; one is of a mathematical nature, and one is biological.

We assume, first, for the sake of the argument, that the sugar industry in this country is reasonably profitable. Otherwise there would be no reason for asking the question above, an assumption, I am sorry to say, which is not borne out by the evidence before the committee. The evidence of both sides shows that free Cuban sugar at its present and rapidly increasing amount would destroy our industry. The distance from a reasonably prosperous business to complete annihilation is a definite one; that is, the distance from profit to loss. We can also legitimately assume that the profit to the American industry now lies wholly in the duty imposed, whatever may be the percentage of that profit on the duty collected. Mathematically, then, it follows that the magnitude of the profit will be diminished proportionately to the reduction in the duty. If that be 20 per cent, the profits of Americans interested in the productive sugar industry would be diminished 20 per cent, and so on to the total extinction of the duty.

The biological side of the argument relates to the life of the industry. An industry, like an animal, may show active life even when moribund, and so the sugar industry might be continued for some time with a 20 per cent or even greater reduction in the rate of duty without apparent evidence of low vitality. A plucky business, like a plucky patient, will not show the white feather to approaching death.

It appears from some of the evidence that with free sugar or a large reduction in duty Cuba would send us a million tons of sugar next year. This, added to our own production of 800,000 tons, would still leave us 700,000 tons short of the consumption. This amount would have to be duty-paid sugar; and thus the prices would be kept up to the old standard, and no sugar producer in this country would suffer.

If this contention be true, then there is no reciprocity in the proposed arrangement.

Mr. HOPKINS. Doctor, are you willing to let me interrupt you right there? While it might not put it down to the lowest price would it not modify the price so that the consumers would get sugar cheaper than they would if the duty remained as it is now?

Dr. WILEY. I am discussing this supposed flaw in my argument. It has been asserted here that as long as there is a duty the price of sugar will not fall in this country. That is the point I am discussing—not in my evidence, but in what has been brought before us here.

Mr. MCCALL. But, Doctor, would not the reciprocal feature come in in the admission to Cuba of American goods, as shown by the collector of the part of Habana the other day, to the extent of some thirty or forty million dollars more than we now sell?

Dr. WILEY. That will come in later; I have that down here, too. I want to discuss this point of the argument. One of the arguments made in the printed report of the hearings, which the committee sent me, was this: That as long as we paid duty on sugar the reduction of the rate on Cuban sugar would not diminish the price to home consumption.

Mr. HOPKINS. Is there anybody with any experience at all who regards that as a sound argument, Doctor?

Mr. ROBERTSON. Mr. Atkins did.

Dr. WILEY. I do not. I do not regard it as a sound argument. I am trying to show the fallacy of it. It is an argument which has been presented to this committee, however, and there is weight in it as long as the duty free sugar is only a small par of the whole. For instance on a consumption of 2,250,000 tons prices might kept up pretty well if no more than 500,000 were imported duty free.

If the people in the United States get no benefit from lowering the duty on sugar, who does? The Cubans? But it may be said the Cubans will let in our products at a reduced rate. We may ask, then, Will our manufacturers sell at an increased price to the Cubans? If not, where will our benefit come in? It can not be demonstrated in any convincing way that a reciprocity which does not lessen the price of a commodity or a series of commodities to the contracting parties is any advantage to either. If the contention be true that American sugar makers will not be injured by free Cuban sugar so long as the supply does not equal consumption, then it follows that if even one pound of sugar had to be imported duty paid, the duty price to the consumer would be maintained. The fallacy of such an argument needs no further illustration. In another place the possibilities of sugar production in Cuba under free trade have been shown. Once started in that direction, it is not hard to see where the road would end.

It is logically inevitable that any reduction in the duty on Cuban sugar would in the end, on account of its great and rapidly increasing quantity, depress, at least temporarily, the price of that commodity, and thus add to the difficulties which the industry in this country is now meeting.

In the development of a sugar industry some regard must be paid not only to the sugar itself, but to the effects of the industry upon other interests. It is well known that in the sugar industry we have typified the highest principles of agriculture, as well as of the technique in the factories. Hence, in the development of such an indus-

try in a country we have an object lesson of which every branch of agriculture and every technical industry may take advantage.

There is no possibility of the agricultural part of the sugar industry succeeding in this country with a slipshod method of agriculture. The most advanced principles of science must be applied and the highest style of agriculture practised. Thus, every sugar-beet field becomes a veritable agricultural experiment station, in which is typified all the latest advances which science has discovered. Universal experience has shown that a systematic sugar industry does not impoverish but increases the fertility of the soil, so that every crop grown in rotation with sugar beets is benefited to a greater or less extent.

In the north of France fifty years ago the yield of wheat per acre was only 17 bushels. To-day it is 27 bushels. This has been brought about solely by the effects of the beet-sugar industry upon general agriculture. The price of land rapidly advances in all regions contributory to a sugar factory. Thus, not only is fertility increased, but the farmer is also enriched by enhancement of land values.

In the beet-sugar industry, especially, the by-products are of the utmost importance. The pulp forms an elegant food for cattle, and is much sought after in all the regions where the beet-sugar industry has been long established, especially for dairy cows, and for purposes of maintenance the pulps resulting from the manufacture of beet sugar are highly prized. The beet molasses forms a by-product of exceptional value. It is used either as a source of alcohol, or more especially as a cattle food. When mixed with some absorbing material it forms a cattle food of high nutritive value, tending to produce large quantities of fat and supplying immense quantities of animal energy.

In this country extensive experiments have been carried on by the Department of Agriculture, in the Bureau of Chemistry, in developing the best forms in which this food can be utilized. It has been found that the fine-ground stalks of Indian corn, after they have dried standing in the field, or after they have been cut for fodder, are the best possible absorbents for molasses. In this fine-ground state the cornstalks themselves become a nutrient almost as valuable as timothy hay. It has been shown by actual experiment that an amount of molasses from three to four times the weight of the cornstalks can be absorbed perfectly, forming an almost dry mass, which is of exceptional value for all forms of cattle feed, for fattening steers, for feeding sheep or pigs, and for horses.

Thus there are found clustering around a beet-sugar factory every form of the highest agricultural industry; and the paralysis or destruction of this industry would be a misfortune to the prosperity of our country which no words can properly express.

The molasses from sugar cane is of no less value, either for alcohol or for cattle food. In addition to this, the bagasse (that is, the residue from the mill or the diffusion batteries) is shown to be an excellent fuel, or a most promising material for the manufacture of paper. It is thus seen that many different agricultural industries and activities of all kinds cluster around the sugar factory.

The price which a consumer pays for a pound of sugar is not the only thing to be considered. It should be as low, of course, as is consistent with the relations to other industries and ligitimate profits. It might be a great misfortune that he should be permitted to pay only

2 cents a pound, while it might be a great blessing if he should be compelled to pay 5 cents a pound for his sugar.

The industries which are allied to the sugar industry are almost numberless. It demands fuel; it demands machinery; it demands cooperage; it demands limestone. It touches almost every branch of manufacture. The 4 cents a pound which the manufacturer should receive, under present conditions, goes to all parts of our country. It has been shown by the testimony of the representatives from Louisiana that the interstate commerce due to the sugar industry in that State alone amounts to $70,000,000 a year. Is it a wise policy to strike down this industry for the sake of a few million dollars which it is claimed will go into the pockets of the Cubans?

The ramifications of the beet-sugar industry are still more minute. It touches almost every branch of domestic prosperity. Cheapness is not the only thing to be looked after in political economy. We can have cheap labor if we want it. We can break down the barriers which keep out the Asiatic hordes, and we can supply labor at 30 cents a day; but are we in a position to ask that our laborers be brought into such a ruinous competition?

Finally, the great product of a sugar industry is found in the superior race of human beings which it engenders. It fosters every branch of science. It rewards every kind of labor. It sends its favors into every department of manufacture. It requires the highest scientific intelligence. It exacts the greatest skill in its manual labor. It demands the best which humanity can offer and offers to humanity the best which any industry can command. To make our own sugar means not only the supply of our home market but it means the development of citizens of superior qualities, of higher intelligence, of greater skill. No country can afford to throw away the chance to develop a citizenry of such qualifications.

Another fact must be taken into consideration, viz, the possibility of war with a foreign country. It is true that we have grown so formidable that both on land and sea we are not only respected but feared. We have a strength which guarantees future peace; but still complications may arise which will plunge us into war with a foreign nation with a powerful navy. What then would be our condition if we were dependent upon a foreign country for one of our most important supplies of food? The answer is not difficult to surmise. We would be threatened by the enemy; our foreign commerce would be interrupted; our merchant marine might be paralyzed; our supply of sugar would be shut off, and thus one of our most important articles of food be turned away from our shores. I do not hesitate to say that it is far more economical for us to pay double for sugar produced at home, rather than secure sugar produced in foreign countries at half the price. These are conditions which can not be lost to view when the policy of this Government is determined.

If, after all (and I do not deny this) it is found that we have still a certain duty to perform to Cuba, why not perform it as a nation? Why call upon one of our industries to do what our nation, if any obligation exists, is called upon to do? Does our sugar industry owe any more to Cuba than our steel industry? Does our tobacco rest under greater obligations than our manufacturers of textile fabrics, or does our vegetable and fruit industry owe more to Cuba than our millers in Minnesota who sell her breadstuffs? If we are to be taxed

for the benefit of Cuba, let us be taxed as a whole and not as a part, and if money must be paid into the coffers of the Cuban treasury, let it be given by us as a nation to Cuba as a nation.

It is not difficult to show that if our domestic industry be destroyed, the benefits which come from its destruction will not be to Americans as a whole, or to Cubans, but will go largely to the sugar refiners. A cartel such as has never been dreamed of in Germany will rise where smokeless chimneys and motionless mills once were active and productive. There is a real danger, and there is where the chief benefit from reduction of duty asked by the witnesses before this committee will go.

The statistical data shown in Exhibit A demonstrate that 72 per cent of the beet sugar which is made in the United States goes directly upon the market, and does not pass through the hands of the refiners. It requires no mathematician to demonstrate what will become of our great refining trusts when we make our own sugar and sell 72 per cent of it directly to the home market. Forty per cent of all the sugar made in Louisiana goes directly to the consumers, and thus we see that the refining interests are deprived of exactly that amount of profit. At the present time 72 per cent of our beet sugar is but little over 100,000 tons, and 40 per cent of our cane sugar is also but little over 100,000 tons; so that to-day but little more than 200,000 tons of sugar reach the consumers of the United States without paying a tribute to the refiners. If we succeed in disrupting our own sugar industry, the whole of the sugar we eat will pay duty to them.

The quotations already given of refined sugar of about 94 polarization and 88 per cent rendement at Magdeburg on the 9th of January show that 110 pounds of this sugar could be bought for 6.40 marks, which is almost exactly 1.4 cents a pound. Add to this the freights and duty, and the price of this sugar in New York is scarcely 3 cents a pound. This is the kind of sugar with which our own producers are to be brought into competition.

Willett & Gray state that the cost of refining is 0.625 cent a pound. This includes the expense of distribution. This term "expense of distribution" is a most elastic one. It includes all rebates and drawbacks to the trade. It includes all commissions to agents, all expenses of traveling salesmen, and, perhaps, all rebates made in freights. There is no means of telling what part of the 0.625 cent is the legitimate cost of refining. I doubt whether this cost is much over one-third of the whole.

It is stated by the same journal that the refiners' profit in 1901 was 0.378 cent a pound. Of the 2,250,000 tons of sugar consumed in the United States at the present time the refiners handle at least 2,000,000 tons; and this profit, as confessed by the statistical journal referred to above of Willett & Gray, can not be less than $15,000,000.

If our refining interests, about which in their legitimate field I have nothing whatever to say except in praise, can absolutely control the consumption of sugar in this country, they will doubtless avail themselves, as other human beings would do, of the same privileges which have been used by the German cartel, and, as soon as our native industry had been destroyed, would raise the price of sugar to the maximum permitted by the protective tariff.

It is hard to see the force of an argument which would throw the burden of our concessions to Cuba upon the producers of sugar, while

at the same time it would increase without doubt the profits of the refiners. It seems, therefore, that if something must be done for Cuba, a more just way is to return to the Cuban treasury a certain percentage of the imports collected from Cuban products in our country. This would be a gift from the whole United States to the whole Cuban people; and whatever might be the objections to such a gift, it could not be claimed that it was sectional or imposed upon a single industry. Our people as a whole would be the givers and the Cuban people as a whole the beneficiaries. If aid must be given, let it be given openly as a nation and as a contribution from all our people; but do not let the gift be saddled upon a few already struggling under burdens which are difficult to bear.

In fact, if any industries are to be taxed for reciprocal purposes, it should be those which are supposed to be the beneficiaries of the reciprocity, viz, our food industries, our flours and breadstuffs, our cattle foods, our horse and mule industries, our manufacturing establishments which send machinery, our sugar refiners, and especially our capitalists, who invest their money in Cuba in the hope of receiving large returns. But why ask those of our citizens who are engaged in the promotion of a sugar industry which will benefit not only themselves but also the whole country to bear the burden, which, if it be borne at all, is a national one?

I have shown that if this country and England properly countervail the direct and indirect bounties, and thus place the production of raw sugar on a legitimate basis, the price of raw sugar will be raised at least half a cent a pound to all producers the world over. This would be equivalent to 40 per cent of our import duty on raw sugar. If some arrangement could be made with England to secure this result, then Cuba, with all her natural advantages, need fear no competition from the beet fields of Europe, from those of California and Michigan, nor from the sugar plantations in the delta of the Mississippi.

Mr. NEWLANDS. Doctor, your suggestion is that England and America should unite in countervailing bounties paid by France and Germany; and you say the effect of that would be to raise the price of raw sugar five-eighths of a cent per pound?

Dr. WILEY. Five-tenths.

Mr. NEWLANDS. Would not the effect of that countervailing duty be to reduce the price of French and German beet sugar?

Dr. WILEY. Undoubtedly it would prevent the foreign exporters from underselling their competitors in London.

Mr. NEWLANDS. And it would have the effect of raising the price by limiting the production? Is that your contention?

Dr. WILEY. It would raise the price of raw sugars at once in other countries than those paying the bounty.

Mr. NEWLANDS. It would raise the price at once?

Dr. WILEY. At once.

Mr. NEWLANDS. How would that be? As I understand it, there is a large amount of beet sugar now on the market. If you increase the difficulty that sugar has in getting into England and America (which constitute about its only market), would not that sugar be a still further drug on the market, and would it not be likely to fall in price instead of increasing in price?

Dr. WILEY. Perhaps I had better explain what I meant by raising the price at once. It would take away from the German exporter

the possibility of underselling his competitor on the market, and would make the sugar he now has on hand a greater drug on the market there. The owners of this sugar might make a sacrifice of the stock on hand, temporarily depressing the market.

Mr. NEWLANDS. For the time being?

Dr. WILEY. For the time being; possibly.

Mr. NEWLANDS. Then the favorable effect on the price of sugar of which you speak would be only ultimately secured by compelling the German and French producers to limit their production, would it not?

Dr. WILEY. Yes; to a legitimate basis.

Mr. NEWLANDS. To a legitimate basis?

Dr. WILEY. Yes; that is what it would end in.

Mr. NEWLANDS. You believe that the beet-sugar industry of those two countries is abnormally developed by this system of bounties, do you not?

Dr. WILEY. I certainly do.

Mr. NEWLANDS. What would you regard as a normal development, simply the local consumption of each country?

Dr. WILEY. I think that would be entirely sufficient.

Mr. NEWLANDS. Entirely sufficient?

Dr. WILEY. Yes.

Mr. NEWLANDS. Suppose that were accomplished in both Germany and France, would not that produce a readjustment there that would result in great distress and misery and bankruptcy for quite a period of time?

Dr. WILEY. I think it would be rather hard on some of the people whose money is invested in the industry in those countries under the unnatural stimulus which has produced the present condition.

Mr. NEWLANDS. Have you any idea of the capital that is invested in the enterprise in those countries?

Dr. WILEY. I have statistics which cover that point. I have not them with me. I know almost exactly how much, however.

Mr. NEWLANDS. It would produce a still greater disaster than would the destruction of the beet-sugar industry in our country, because ours has not yet reached such proportions?

Dr. WILEY. Perhaps, measured by dollars and cents; yes.

Mr. NEWLANDS. So that a readjustment of this industry, with the resulting pecuniary distress, is bound to come somewhere if this overproduction is to be cured?

Dr. WILEY. The overproduction must be restricted in some way.

Mr. NEWLANDS. Now, I imagine that the cause of this so-called overproduction is the fact that for a long time, owing to the civil war, Cuba was out of the market, and that the other nations of the world commenced to produce the sugar with which Cuba had formerly supplied the world. Is not that so?

Dr. WILEY. The system of bounties in Europe long antedated the Cuban war.

Mr. NEWLANDS. Would there have been the same field for their enterprise if the Cuban product had kept up to 1,000,000 tons annually?

Dr. WILEY. The Cuban war opened a temporary market for about 800,000 tons more of their sugar.

Mr. NEWLANDS. And now Cuba is producing about 800,000 tons; so that it is the restoration of Cuba that creates the overproduction?

Dr. WILEY. There has been an overproduction for many years, due to the bounty principle. This only accentuated it.

Mr. NEWLANDS. Was there an overproduction in the world prior to the civil war, when Cuba's production was at its maximum?

Dr. WILEY. Do you refer to the civil war between the States?

Mr. NEWLANDS. No; the civil war in Cuba.

Dr. WILEY. Yes; there was an overproduction even then.

Mr. NEWLANDS. Even then?

Dr. WILEY. Even then; yes, sir.

Mr. NEWLANDS. But it was not so marked as now?

Dr. WILEY. Not so marked as now; no, sir.

Mr. NEWLANDS. And it is accentuated now, since the production of Cuba has been restored?

Dr. WILEY. Very much.

Mr. NEWLANDS. It is a question, then, in this readjustment, as to which country shall suffer, is it not?

Dr. WILEY. Yes.

Mr. NEWLANDS. As to whether it shall be Germany and France on the one hand, or Cuba on the other, or, if Cuba is relieved, the United States?

Dr. WILEY. It will come on one of those three countries.

Mr. NEWLANDS. There must be a readjustment of the sugar-producing industry which will result in loss to some one, in some place?

Dr. WILEY. In temporary loss; undoubtedly.

Mr. NEWLANDS. You have spoken of the condition of apoplexy or paralysis that will come to this country if the development of the beet-sugar industry is checked at this time by the introduction of cheap Cuban sugar. That apoplexy or paralysis will exist somewhere else, will it not, if it does not exist here?

Dr. WILEY. Yes, sir; but we always like to have it with the other fellow. [Laughter.]

Mr. NEWLANDS. Now, let me ask you as to the possibilities of the development of Cuba. You say that agriculture now does not depend so much upon soil as upon climate. Do you regard Cuba as exceptionally favored in this particular?

Dr. WILEY. Yes, sir; I do.

Mr. NEWLANDS. Cuba has both soil and climate, has it not?

Dr. WILEY. Yes; it has both.

Mr. NEWLANDS. And you think 450,000 acres are now employed in sugar production?

Dr. WILEY. According to the Cuban census there are 400,000 acres and according to my computation of yield about 300,000 acres.

Mr. NEWLANDS. You understand that that production absorbs the energies of the present population there, do you not?

Dr. WILEY. I have never investigated that subject at all.

Mr. NEWLANDS. Do you know whether or not wages there have advanced during the past year?

Dr. WILEY. I know nothing except what I have heard here in this committee room. I know nothing as a result of personal investigation.

Mr. NEWLANDS. Do you know whether or not, with their present population and with their other industries, including tobacco, they can increase their production of sugar?

Dr. WILEY. I do not know to my personal knowledge whether they have the money and the labor to do it or not. I know they have the

climate and the soil to do it. That is all I went into. I did not go into anything else.

Mr. NEWLANDS. But, as I understand, it is contended that they have not the population; that the population now is only equal to the requirements of the present crops.

Dr. WILEY. I know nothing at all on that point from my own investigation.

Mr. NEWLANDS. If, then, 1,500,000 of population in that island means the production of about 850,000 tons of sugar, and is only equal to that, it would mean that if the production were to be increased to twice that amount—say, 1,700,000 tons—the population of Cuba would have to be doubled, would it not?

Dr. WILEY. Not necessarily.

Mr. NEWLANDS. Assuming that the correlated industries kept pace with it?

Dr. WILEY. I showed in my paper that the sugar industry in Hawaii had increased over 3,000 per cent since 1876, while the population has increased very little in that time.

Mr. NEWLANDS. Yes. That would seem to indicate that Hawaii had not originally reached the limit of her capacity to produce sugar with her then population. But assuming that with her present population Cuba is only able to produce 850,000 tons, would it not require a very large increase in population to double the production?

Dr. WILEY. I think it could be easily doubled without increasing the population at all, by introducing the principles of scientific agriculture and technique which now prevail in Hawaii.

Mr. NEWLANDS. I see. That would mean the introduction of labor-saving machinery?

Dr. WILEY. Labor-saving machinery, better agriculture, and better manufacturing methods.

Mr. NEWLANDS. Another question, Doctor: Which would you prefer with reference to the general interests of America—a reduction of 50 per cent in this duty on Cuban sugar or the annexation of the island as a part of the United States? Which, in your judgment, would be the most injurious?

Dr. WILEY. You know I am an expansionist. Personally, I believe in getting everything we can get hold of.

Mr. NEWLANDS. And if you are an expansionist, you believe in getting a good and a rich country, do you not?

Dr. WILEY. I certainly do.

Mr. NEWLANDS. And you regard Cuba as one of the best and richest countries in the world, do you not?

Dr. WILEY. Yes; and I am against the views of my sugar friends, in that I am in favor of annexing Cuba for the good of all concerned.

Mr. NEWLANDS. Well, that is my view.

Dr. WILEY. I am glad to agree with you. That is a problem, however, which I did not take up at all. That is a different aspect of the question.

Mr. NEWLANDS. Have you considered the economic aspect of the annexation of Cuba?

Dr. WILEY. No, sir; I have not.

Mr. NEWLANDS. The contention now is that if a reciprocal arrangement is made, Cuba will have the advantage; that while she will have the advantage of our market, she will not have the restrictions upon

labor that we have. Do you suppose that if Cuba came into political as well as commercial union with us, by annexation, the cost of the production of sugar there would increase?

Dr. WILEY. I should think, then, we would have there the same economic conditions that we have here, including the same restrictions on imported and contract labor. We would introduce the same methods of agriculture and manufacture, and we would have taking place in Cuba essentially what is taking place in the Hawaiian Islands. They would become Americanized. That is my opinion; I have not investigated the subject at all.

Mr. NEWLANDS. And the conditions for production would be more nearly equalized than if we simply entered into a reciprocal arrangement?

Dr. WILEY. I think they would be far better.

Mr. NEWLANDS. That is all.

Mr. RICHARDSON. Professor Wiley, what is your present connection with the Agricultural Department?

Dr. WILEY. I am the Chief of the Bureau of Chemistry.

Mr. NEWLANDS. How long have you held that position?

Dr. WILEY. About seven or eight months; since the 1st of July.

Mr. RICHARDSON. You were also chief of that division, were you not, in 1897?

Dr. WILEY. It was the Division of Chemistry then; yes, sir.

Mr. RICHARDSON. It is now a bureau?

Dr. WILEY. It is now a bureau; it became a bureau on the 1st of July.

Mr. RICHARDSON. It is the same place, called by a different name?

Dr. WILEY. The same organization expanded; yes, sir.

Mr. RICHARDSON. You are the author of this Farmers' Bulletin No. 52, are you not?

Dr. WILEY. Yes, sir; I am.

Mr. RICHARDSON. You state there that you were formerly director of the Department beet-sugar experiment Station in Nebraska——

Dr. WILEY. Yes, sir.

Mr. RICHARDSON. How long were you in charge of that station?

Dr. WILEY. From the time of its organization until it was abolished by Secretary Morton, in 1893—about four years.

Mr. RICHARDSON. Have you now any connection with the sugar-beet industry?

Dr. WILEY. None whatever, except my investigations in the Bureau of Chemistry, which touch the sugar industry in many points.

Mr. RICHARDSON. You have no sort of business connection with it?

Dr. WILEY. None whatever; I never had.

Mr. RICHARDSON. You voice the sentiments of the Secretary of Agriculture, then?

Dr. WILEY. I do not know whether I do or not.

Mr. RICHARDSON. He indorsed those bulletins which you sent out, did he not?

Dr. WILEY. I know he is very much interested in the sugar industry of this country; but whether or not he would indorse the sentiments I have uttered here to-day I can not say. These are my own sentiments.

Mr. RICHARDSON. He has given out no statement?

Dr. WILEY. He authorized me to come here on the invitation of the

committee, but he has given out no statement of his own so far as I know.

Mr. RICHARDSON. You have read the report of the Secretary of War?

Dr. WILEY. Yes, sir.

Mr. RICHARDSON. And the recommendation of the President?

Dr. WILEY. Yes, sir.

Mr. RICHARDSON. And General Wood?

Dr. WILEY. I have not read that, but I have heard of it. I have read the other two, however.

Mr. RICHARDSON. You do not agree with them in their recommendations in respect to the treatment of Cuba on this question?

Dr. WILEY. I do not.

Mr. RICHARDSON. I ask you this, Doctor, for this reason: Do you contemplate remaining in the Agricultural Department? Is that your idea? [Laughter.]

Mr. RICHARDSON. You need not answer if you do not wish. I ask simply because I have heard that you did not.

The CHAIRMAN. You need not answer that question, Doctor.

Mr. RICHARDSON. Not unless he wishes to.

Mr. HOPKINS. I do not think that is proper.

Mr. RICHARDSON. I do not want him to answer it unless he is willing to do so.

Mr. ROBERTSON. That has not anything to do with the case.

Mr. RICHARDSON. The object of my question is just this, Mr. Chairman, as I am frank to state, and he need not answer it if he does not wish to do so: I have understood that the Doctor contemplated leaving the Agricultural Department and going into the sugar-beet industry. Whether that is true or not I do not know.

Dr. WILEY. It is the very first I have heard of it. [Laughter.] Mr. Chairman, it is the first intimation of the kind I have ever had. I thought the gentleman implied that I would be removed because I did not agree with the Secretary or the President. [Laughter.]

Mr. RICHARDSON. Oh, not at all. I did not mean that. I understood, Doctor, that you contemplated voluntarily retiring—some one had said so to me.

Dr. WILEY. This is absolutely the first I ever heard of it, sir.

Mr. METCALF. Doctor, I understood you to say that about 72 per cent of the beet sugar produced in the United States is refined directly at the factories?

Dr. WILEY. Yes, sir.

Mr. METCALF. That would leave about 28 per cent of raw sugar which must be refined by other factories?

Dr. WILEY. Yes, sir.

Mr. METCALF. Can you give me the names of the other factories that refine raw sugar?

Dr. WILEY. I do not know that any of them refine any except their own product. I took this data from the census report. I do not know where that 28 per cent goes—whether it goes to another factory or to the refineries.

Mr. METCALF. In answer to a question put to you by Mr. Newlands, you said that under improved conditions, with improved machinery, and so on, double the crop of sugar could be produced in Cuba that is

produced there to-day, without an increase in population. Is that correct?

Dr. WILEY. I believe it could be done; yes, sir.

Mr. METCALF. From the same acreage?

Dr. WILEY. From the same acreage.

Mr. NEWLANDS. From the same acreage, you say?

Dr. WILEY. Yes, sir; I believe the production of sugar there could be doubled. It has been more than doubled in Hawaii. Hawaii produces four, five, or six times as much sugar per acre as she did in 1876.

Mr. GROSVENOR. I understood you to say that it could be largely increased without an increase in population.

Dr. WILEY. Yes, sir; I illustrated that by Hawaii, whose increase in sugar production has been over 3,000 per cent, while the population has not increased at anything like that rate. There has been a very slight increase in population.

Mr. TAWNEY. Doctor, in your judgment would a tariff concession to Cuba result in giving the sugar to the consumer at a lower price, if the duty on refined sugar were not reduced?

Dr. WILEY. My impression is that it finally would; that the consumer would get sugar at a lower price.

Mr. TAWNEY. Temporarily?

Dr. WILEY. Because I do not believe the refineries would pay a high price if they could help it. They would not have to under that arrangement, but they would have to sell at a reduced price.

Mr. TAWNEY. You think the refineries would not pay the world price unless they had to?

Dr. WILEY. The refineries will buy their sugar where they can buy it the cheapest, without any reference to the world price or anything else. They buy, as anybody else would, where they can get the cheapest sugar.

Mr. ROBERTSON. Would they sell cheaper for that reason?

Dr. WILEY. They will buy as cheaply as they can, and they will sell just as high as they can; just as the rest of us would do.

Mr. ROBERTSON. Suppose the price of sugar was high at Hamburg and they controlled the market over here.

Dr. WILEY. They would sell it at the very highest notch that they could sell it.

Mr. METCALF. Doctor, this has been the only market for Cuban sugar, I understand.

Dr. WILEY. Practically speaking, bounty-fed sugar has cut all tropical sugar out of England and the Continent of Europe. Very little of it goes there.

Mr. METCALF. Then, this being the only market for Cuban sugar, could not the refineries place their own price on the raw product?

Dr. WILEY. The Cubans have to sell to the refiners for whatever the refiners will give them. They have no other place in the world where they can sell.

Mr. METCALF. Then the refiners—

Dr. WILEY. The refiners will absolutely fix the price.

Mr. METCALF. They will practically control the situation as to price?

Dr. WILEY. It will be absolutely controlled by the refiners.

Mr. TAWNEY. You do not agree, then, Doctor, with many sugar

importers who appeared before this committee and testified that the free importation of sugar from Cuba would not affect in the least the place at which the world's price of sugar is fixed?

Dr. WILEY. No; I do not agree with them in that respect, but I do agree with them in believing that something should be done for the sugar makers in Cuba and in the United States in order to secure a legitimate and profitable market.

Mr. TAWNEY. That is, they testified that the world's price of sugar is to-day fixed at London, f. o. b. Hamburg.

Dr. WILEY. Yes.

Mr. TAWNEY. They also claimed that that would be the case if sugar was imported into the United States free of duty, and that therefore the benefit of whatever reduction or removal of the duty we may decide to make would go entirely to the planter in Cuba.

Dr. WILEY. I think very little of it would ever get there.

Mr. TAWNEY. Very little of it would ever get there?

Dr. WILEY. Very little of it. The planter in Cuba would be just where he is now. He would practically have to compete with the world's price of sugar. He might get some benefit at first, until his production practically satisfied our consumption; and then he would be in exactly the same position as any other producer of raw sugar.

Mr. MCCALL. Until that time, would he get a benefit?

Dr. WILEY. Until that time; I think he would get a slight benefit to begin with; that is my opinion.

Mr. RICHARDSON. Doctor, I want to ask you this question: If there is any concession at all made to Cuba—that is, if any reciprocal arrangement is entered into by which the duty on Cuban sugar is reduced—will it affect at once the manufacture of beet sugar in this country, in your opinion?

Dr. WILEY. Will you please repeat that question?

Mr. RICHARDSON. I mean to say, if a concession should be made in favor of Cuban sugar by a reduction of the tariff, would it at once operate adversely to the interests of the beet-sugar people in this country?

Dr. WILEY. It would operate with greater hardship than a small reduction really ought to, because it would destroy confidence.

Mr. RICHARDSON. Could it stand any reduction at all, in your opinion, without injury to the beet industry.

Dr. WILEY. I have studied the statistics very carefully, and, taking it as a whole, I fail to see where there is at the present time any profit in the sugar industry. I do not believe, taking the whole sugar industry of the United States, beet and cane, that the persons engaged in it made 1 per cent profit last year. I doubt if they came out even, dollar for dollar. So I can not see how you can speak of reducing a profit which does not exist.

Mr. RICHARDSON. Suppose there was a reduction of 50 per cent, what effect would it have on the beet industry?

Dr. WILEY. I think it would tend to paralyze it absolutely, both by direct injury, but chiefly by impairing confidence in the future.

Mr. HOPKINS. You have grouped the cane and beet sugar interests together, Doctor. What effect would it have on beet sugar alone? Suppose there was a 50 per cent reduction, or, say, a reduction of 25 or 30 per cent.

Dr. WILEY. I have discussed that pretty fully. I said that, assuming that there is now a fair profit on the making of sugar in this country, it is demonstrated that that profit lies wholly in the duty. In other words, it is not as great as the duty; it is not 1.68 cents a pound.

Mr. HOPKINS. You assume that. Have you figures to prove it?

Dr. WILEY. No; but it is absolutely certain; I think that the profit is all in the duty. No one has claimed that the average profit on sugar production in this country is more than 1.68 cents a pound.

Mr. HOPKINS. Are not many of these beet sugar factories making a much larger profit than the duty?

Dr. WILEY. I do not think, taking them as whole, that they have made any profit at all.

Mr. HOPKINS. As a whole, yes; but you know every new industry that starts is supposed not to make profits until it gets established. In making your estimates you have taken the new factories with those already established, have you not?

Dr. WILEY. While I do not know, I think it is possible that there may be some beet-sugar factories in this country that have made a fair profit.

Mr. HOPKINS. Is it not a fact that the beet-sugar industries in this country that are established are making a profit much beyond the duty that is imposed on sugar?

Dr. WILEY. If that is a fact it does not occur in any of the statistics that I have been able to find.

Mr. HOPKINS. Are you prepared to say that it is not a fact?

Dr. WILEY. No, sir; I am not, because there may be statistics concealed; but I can rely pretty well upon the census data, I think.

Mr. NEWLANDS. Doctor, do you think Germany and France have purused a wise policy, from the selfish standpoint, in stimulating the production of beet sugar as they have?

Dr. WILEY. I think the policy was wise to the extent of establishing an industry equal to their home consumption. I think that was wisdom; but the moment they began to supply foreign countries with sugar at less than the cost of production, and tax their own consumers to enable them to do it, I do not think it was wise.

Mr. NEWLANDS. You would regard it, then, as a wise policy for this country to stimulate the beet-sugar production to a point where it can equal the consumption of this country, but not to go beyond it, would you?

Dr. WILEY. I would not ever advise a stimulation of any kind which would go beyond the point of home consumption.

Mr. NEWLANDS. Now, assuming that there were no protective tariffs anywhere on sugar and no bounties paid upon the production of sugar, which sugar would supply the world—the beet sugar or the cane sugar?

Dr. WILEY. If there had never been any protection at all for beet sugar it would not exist to-day anywhere in the world. It would be absolutely unknown.

Mr. NEWLANDS. Very well. Now, taking the two industries in their present condition, the beet-sugar industry fully developed and the cane-sugar industry with its history of past development and its present development, suppose bounties and tariff protection were withdrawn, which sugar would control the markets of the world?

Dr. WILEY. I do not hesitate at all to say that cane sugar in favored localities like Cuba can be made cheaper than beet sugar. But what I do say, and what I have brought out in the paper, is that the allied industries which cluster around beet sugar and around cane sugar in the subtropical regions of this country more than compensate for the difference in price.

Mr. NEWLANDS. I understand your reasoning in that regard; but sugar is the main product of these tropical and semitropical countries, is it not?

Dr. WILEY. Well, sugar, coffee, and fruits; yes.

Mr. NEWLANDS. It is about all they are able to produce that pays, is it not?

Dr. WILEY. Yes; together with cassava and starch of all kinds.

Mr. NEWLANDS. I mean in any considerable quantities.

Dr. WILEY. Sugar is one of the principal crops of tropical countries; yes.

Mr. NEWLANDS. Then the policy that you suggest of stimulating the production of sugar in countries that are not adapted to it, either by protection or bounties, means that the semitropical countries are deprived of the means of securing their fair share of the prosperity of the world, does it not?

Dr. WILEY. I would not advise stimulating an industry which was not adapted to a country. Certainly if any industry is adapted to a country, the beet-sugar industry is adapted to northern climates.

Mr. NEWLANDS. That is true; but I understand you to say that cane sugar has the advantage in cheapness of production.

Dr. WILEY. I think it has. It is a plant that grows more easily. It is manufactured more easily.

Mr. RICHARDSON. Doctor, may I ask you where you resided when you were director of the sugar-beet experiment station in Nebraska?

Dr. WILEY. I resided in Washington.

Mr. RICHARDSON. Where is your home, Doctor?

Dr. WILEY. In Washington. I did not reside in Nebraska; I only had charge of that station. Dr. Maxwell was my assistant in charge. He is now the sugar expert for the Australian Federation.

Mr. RICHARDSON. How long have you lived in Washington?

D. WILEY. I have lived in Washington nearly nineteen years.

Mr. RICHARDSON. Where did you live before you came here?

Dr. WILEY. I lived in the State of Indiana; I was born in that State.

Mr. RICHARDSON. I would like to ask you what the prospects are for producing sugar from the sorghum plant?

Dr. WILEY. I do not think any at all. I have been through that subject thoroughly.

Mr. RICHARDSON. You have given it up, have you?

Dr. WILEY. Absolutely.

Mr. RICHARDSON. I heard you were still experimenting on it?

Dr. WILEY. Only as a source of table sirup and as a cattle food. It is very fine for those purposes.

STATEMENT OF MR. C. F. SAYLOR,

Special agent of the Department of Agriculture, in charge of the beet-sugar investigations of the United States.

Mr. SAYLOR. Mr. Chairman, what I have to say to this committee is a little indefinite. I came here because the Secretary of Agriculture notified me that the chairman of the committee wanted me to come over. Now, I have no set speech to make before the committee; I have not arranged any, but I have been watching through the press the developments before this committee on the subject of sugar, and presuming that that was what you wanted to ask me about, I have simply prepared some data that might reinforce my memory.

I am really here at the pleasure of the committee to consider what they wish me to take up. Do you wish me to take up the subject as it has been discussed this morning, or wish me to answer questions?

The CHAIRMAN. It was represented to me, Mr. Saylor, that you had some special knowledge on the subject; that you had visited the sugar plantations of different countries, as well as our own; and what we would like to hear would be the result of your investigations.

Mr. RICHARDSON. Please state, for the benefit of the committee, what office you hold.

Mr. SAYLOR. I am special agent of the Department of Agriculture, having in charge the investigation of beet-sugar production; but I have visited all the islands except the Philippines, making an investigation along these lines as far as it bears upon our production in this country. My work has been largely throughout all the States in the North where they are growing beets and producing sugar, and making a study in Porto Rico and the Hawaiian Islands of the conditions of the production of sugar there, the cost of production, and questions of that kind. I have also visited Cuba, but Cuba not being a possession of ours I have not gone into details as to her production. I published a report in 1898 in which I gave every item of cost that enters into the cost of production of sugar in Porto Rico, from information furnished by the factories themselves.

I have also gone into the details of the cost of production in the Hawaiian Islands; that is in my report of 1899. My work in Cuba was simply to take the information I got in Porto Rico as to the conditions which apply also to Cuba, and to devote about two weeks to Cuba, and I was not there long enough to bring out the details—that is, to furnish you a detailed statement, but simply to form some general conclusions of my own.

Mr. ROBERTSON. Did you make any investigation of the cost of the production of sugar in Cuba?

Mr. SAYLOR. Simply by general inquiry, as I say, as much as I could do in two weeks. I made a definite, detailed statement for Porto Rico, and went from Porto Rico to Cuba.

Mr. ROBERTSON. From your investigations, what can they produce sugar for in Cuba?

Mr. SAYLOR. My notion was, as a result of the inquiries I made of sugar producers and from comparing the conditions in Cuba and Porto Rico, that Cuba at that time, right after the Spanish war, was making sugar and laying it down at her ports for from $1.50 to $1.75 per hundred pounds.

Mr. ROBERTSON. That means transportation paid, does it?
Mr. SAYLOR. Down to her own ports; I mean ready for shipment.
Mr. ROBERTSON. What year was that, Mr. Saylor?
Mr. SAYLOR. That was right after the Spanish war.
Mr. NEWLANDS. Was labor cheaper then than now?
Mr. SAYLOR. I do not know, sir.
Mr. ROBERTSON. You mean a cent and three-quarters a pound?
Mr. SAYLOR. Yes, sir.
Mr. ROBERTSON. At the port?
Mr. SAYLOR. Yes, sir.
Mr. ROBERTSON. Ready for shipment, in bags?
Mr. SAYLOR. Yes, sir; I counted that a very conservative statement. I felt that there were factories there that were producing sugar for $1.25, and factories that were producing it at $1.75. The difference would grow out of the fact that some factories were back in the island, and the cost of getting the sugar to their own ports was considerably more than with others, you know. Sometimes they would have to haul the sugar with ox teams or convey it over railroads. Other factories would be near the ports. Taking into consideration the conditions applying to the different factories, the condition of lands, and so forth, I put at that time the average cost of producing sugar in Cuba at $1.50 per hundred pounds.
The CHAIRMAN. When was that, Mr. Saylor?
Mr. SAYLOR. It was right after the close of the Spanish war.
Mr. ROBERTSON. What year?
Mr. SAYLOR. The war closed in 1898, and I was there in the winter of 1898–99. My report was made in 1899 for 1898.
Mr. NEWLANDS. Do you remember what the production of sugar was that year?
The CHAIRMAN. Did you make a report of your investigations at that time, in 1899?
Mr. SAYLOR. Yes, sir.
The CHAIRMAN. Have you that report here?
Mr. SAYLOR. Yes, sir.
The CHAIRMAN. How many pages are there of it?
Mr. SAYLOR. As I said, you know, I made no published report on Cuba, but on Porto Rico. I was simply carrying my deductions down from Porto Rico. I have, however, an itemized statement of the cost of production in Porto Rico.
Mr. ROBERTSON. Is there anything in that report bearing upon your statement here as regards the cost in Cuba?
Mr. SAYLOR. No, sir; there is nothing bearing on that except that, as I said, I was only there for two weeks, and my conclusions were reached from carrying down from Porto Rico the conditions there, comparing them with the Cuban conditions, and talking with sugar producers. They were simply my own conclusions, but I have not published them, and I have not any detailed account of them.
The CHAIRMAN. When did you last examine the beet-sugar industry in the United States?
Mr. SAYLOR. Oh, I have done so every year; I have just come into Washington.
The CHAIRMAN. Have you done so during the past year?
Mr. SAYLOR. I got into Washington about two weeks ago; and I have been out all the year.

The CHAIRMAN. You have been around to all the beet-sugar factories in the United States?

Mr. SAYLOR. Yes, sir; all over the country.

The CHAIRMAN. Have you made a report of this last examination?

Mr. SAYLOR. I am making my report now.

The CHAIRMAN. Have you arrived at the cost of sugar yet?

Mr. SAYLOR. No, sir. It is an indefinite thing, Mr. Chairman. It is a hard thing to get at the cost of producing sugar in this country, it is so unstable. In Germany, through the publicity that has to be given to business there, you can get very definite statements.

In this country, of course, we can not get at the cost. That is a matter that is with the factories. We can get at a great many facts that bear on the subject; and of course I inquire into the cost of production as closely as I can, and come to as accurate conclusions as I can; but as far as concerns being able to state a definite amount, a definite item of cost, it can not be done. I think the census report comes near it, because they went to the factories and got sworn statistics from them, which were produced here before the committee.

The CHAIRMAN. Was that census report made from your investigation?

Mr. SAYLOR. No, sir; that was made by Dr. Spencer, who was sent out by the Census Bureau.

The CHAIRMAN. But it corresponds with the facts which you have ascertained?

Mr. SAYLOR. Yes, sir.

The CHAIRMAN. And does it correspond with the cost price which you reported at that time, in 1900?

Mr. SAYLOR. I do not give any cost price; I only give definite facts that I have data to support.

The CHAIRMAN. But the data which you obtained corroborates the census report, does it not?

Mr. SAYLOR. Yes, sir.

The CHAIRMAN. Is it not the fact that at that time a number of these factories were in their first campaign, their first year?

Mr. SAYLOR. Yes, sir.

The CHAIRMAN. How many of them?

Mr. SAYLOR. In the census year? I do not recall exactly the number, but the census report gives it.

The CHAIRMAN. The census report gives the number, does it?

Mr. SAYLOR. Yes.

Mr. TAWNEY. You refer to the last census report, do you not?

Mr. SAYLOR. The last census report—the bulletin on that subject.

Mr. METCALF. You mean Census Bulletin 59? That is what you refer to, is it not?

Mr. SAYLOR. Yes, sir.

Mr. HOPKINS. Did you say that some of these factories declined to give you the elements that go to make up the total cost of production?

Mr. SAYLOR. No; I know the elements, but to give all the items of cost——

Mr. HOPKINS. They declined to do it, did they?

Mr. SAYLOR. Well, I have not asked that question directly. That is a private matter, you know, that they are not required to disclose to a Government official.

Mr. HOPKINS. But they knew you were a Government official?

Mr. SAYLOR. Yes, sir.

Mr. HOPKINS. And that you were seeking to obtain data that would be beneficial to the public interests?

Mr. SAYLOR. Yes, sir.

Mr. HOPKINS. And they did not give you the elements that would enable you now to state what the cost of a pound of sugar is at the various beet factories?

Mr. SAYLOR. Yes, sir; I can say that they did, in a general way. That is to say, I have definite conclusions of my own, but I have not the data to publish, gotten from those institutions, that establishes the fact, although I have spent all my time in this work among the factories.

Mr. HOPKINS. Do you mean that from your experience you have been enabled to reach the conclusions you now have?

Mr. SAYLOR. Yes, sir.

Mr. HOPKINS. Rather from your own investigation than from what they told you?

Mr. SAYLOR. Yes, sir; that is about it.

Mr. TAWNEY. How recently have you been in Cuba?

Mr. SAYLOR. The time I named.

Mr. TAWNEY. In 1898?

Mr. SAYLOR. In the winter of 1898–99.

Mr. TAWNEY. You do not know anything about the conditions in regard to the employment of labor there at this time, then?

Mr. SAYLOR. Not at this time; no, sir.

Mr. NEWLANDS. Do you know what the average cost of labor was at that time on the Cuban plantations?

Mr. SAYLOR. The cost of labor at that time ran from about 40 to 60 cents.

Mr. NEWLANDS. A day?

Mr. SAYLOR. A day.

Mr. NEWLANDS. And it was upon that cost of labor that you based your estimate that sugar could be delivered to the home ports there at $1.75 per 100 pounds?

Mr. SAYLOR. Yes, sir; so far as the labor part of it is concerned. That was on the basis of that cost of labor.

Mr. NEWLANDS. Of that cost of labor?

Mr. SAYLOR. Yes.

Mr. NEWLANDS. Now, suppose the price of labor to-day were about 80 cents a day?

Mr. SAYLOR. That would increase the cost of production, so far as labor is concerned, to the extent of the difference between 40 or 60 cents and 80 cents.

Mr. NEWLANDS. That would be about one-third, would it not?

Mr. SAYLOR. But mind you, labor is not the main item.

Mr. NEWLANDS. I thought almost the entire cost of sugar was labor.

Mr. SAYLOR. That was right after the Spanish war, you understand, when their facilities were depleted, and all that sort of thing. I understand, however, that since that time they have had the benefits that would arise from perfecting these factories by more capital and more energy, so that the increase in the cost of labor has tended to bring up the cost of sugar; the better facilities and the better work and the better capitalization have tended to decrease it.

Mr. ROBERTSON. It would average about the same, then, in the general make-up?

Mr. SAYLOR. I should imagine so, as nearly as I could determine.

Mr. METCALF. How long have you been engaged in an investigation of the beet-sugar industry of the United States?

Mr. SAYLOR. Five years.

Mr. METCALF. From your investigations, have you come to any conclusions as to the possibilities of the beet-sugar industry of the United States?

Mr. SAYLOR. Yes, sir.

Mr. METCALF. What are they, if you have no objection to stating them?

Mr. SAYLOR. My conclusions are that under the present conditions of trade relations, with the interest aroused and with the prospects for entering into the industry at the present time, the United States in the next ten or fifteen years would be producing the entire amount of sugar for which we are now sending abroad.

Mr. METCALF. Do you know how many beet-sugar factories there are in the United States at the present time?

Mr. SAYLOR. There are about——

Mr. ROBERTSON. This bulletin states there are 31.

Mr. METCALF. That was in 1899.

Mr. SAYLOR. Yes, sir. I have here a detailed statement so far as that is concerned. I supposed you would ask me that question. We have, at the present time, about 41.

Mr. METCALF. Do you know how many are under process of construction?

Mr. SAYLOR. We have 9 that are getting ready for the next year's crop, which, added to the 41, would make about 50.

Mr. METCALF. Do you know how many are in contemplation?

Mr. SAYLOR. I have here a list of about 100 concerns.

Mr. HOPKINS. A hundred beet factories?

Mr. SAYLOR. A hundred different concerns in the beet-sugar business. I have not the cane-sugar data. I have here a list of the concerns that have gone so far as to capitalize and organize and subscribe their capital.

Mr. HOPKINS. Is that all there is to it—that they are on paper? I want to know how many factories there are in this country actually producing sugar.

Mr. SAYLOR. I have just given you that. I was answering this gentleman's question.

Mr. ROBERTSON. He has stated that.

Mr. HOPKINS. Now answer mine.

Mr. SAYLOR. I answered that there are 41 that are producing sugar this year. There are 9 more that are now constructing their factories to enter the field for next year. Then I was asked how many different concerns there were that I knew of that were preparing to go into the business, which were tangible—strong probabilities, as I understood—and I was proceeding to answer that question.

Mr. NEWLANDS. How many of them did you say?

Mr. SAYLOR. There are at least 100 of those.

Mr. NEWLANDS. A hundred additional?

Mr. SAYLOR. A hundred additional.

Mr. METCALF. Have you a list of those companies?

Mr. SAYLOR. I have.

The Chairman. I wish you would hand it to the stenographer.

Mr. METCALF. Does this list also show the locations?

Mr. SAYLOR. It does. (See p. 602.)

Mr. HOPKINS. And the capitalization? I would like to have that stated, also.

Mr. NEWLANDS. Does your statement give the capital subscribed, or merely the nominal capital?

Mr. SAYLOR. This is what I have here preceding the list; and probably it contains the facts in about as brief a form as I could state them. I say:

We have referred to the last census report as showing the rapid growth of this industry in this country, it having 31 factories. Since that time 11 other factories have been put in operation, located at the following places, with the daily capacity designated: Lyons, N. Y., 600 tons; Rocky Ford, Colo., 1,000 tons; Sugar City, Colo., 500 tons; Bingham Junction, Utah, 350 tons; Provo, Utah, 350 tons; Lansing, Mich., 600 tons; Saginaw, Mich., 600 tons; Loveland, Colo., 1,000 tons; Menominee Falls, Wis., 500 tons; Salzbury, Mich., 400 tons; Logan, Utah, 400 tons.

I may say here that, speaking in round numbers and for general purposes, when you refer to a 600-ton factory (which, of course, means a factory having a capacity of 600 tons of beets daily), you may assume that it will cost at least $600,000 to build and install and equip it. In other words, it is safe to assume a cost of about $1,000 per ton of capacity. That is what is taken this country over for general purposes.

The following places are building factories, or have all the details settled for building factories, for the crop of 1902.

That is, they have made the contracts for the buildings, and are buying their materials and have them on the ground, and are in the different stages of construction:

Sebewaing, Mich., 600 tons; Carrollton, Mich., 600 tons; Shelby, Ind., 500 tons; Mount Clements, Mich., 600 tons; Greeley, Colo., 800 tons; Eaton, Colo., 500 tons.

I understand that in the last year or so Eaton, Colo., has been trying to subside.

Mr. GROSVENOR. Trying to do what?

Mr. SAYLOR. Well, you understand these are definite concerns that have made all their arrangements; but they are like other concerns that are studying this situation and the agitation of this question. All of these 100 concerns would have been more definite, except that they are waiting for the settlement of these questions which are pending. (Reading:)

Fort Collins, Colo., 500 tons; Croswell, Mich., 600 tons.

Below we give a list of beet-sugar projects that are contemplated for the places named, having a daily capacity named. We also set opposite the amount of capital that would be required to equip and construct such factories.

Mr. HOPKINS. Before you go on further, what do you mean by "contemplated?"

Mr. SAYLOR. This next paragraph covers that point:

This list of projects are in different stages of organization and capitalization, consisting of concerns fully organized and capitalized, down to concerns where conditions have been thoroughly canvassed, understood, and appreciated, and where organization and capitalization seem imminent.

All of these projects we consider strong possibilities in the near future, provided questions affecting the beet-sugar enterprise are settled. There are many others for which we have not the data.

Now, I give the list of concerns.

Mr. GROSVENOR. How many of them are there?

Mr. SAYLOR. One hundred.

Mr. GROSVENOR. Where are they; in what States?

Mr. SAYLOR. Shall I read them?

The CHAIRMAN. Just give the States.

Mr. SAYLOR. I will state the number in the different States. Here is Arizona with 3; California with 5; Colorado has 7; Indiana, 1; Iowa, 4; Idaho, 1; Michigan, about 30; Montana, 1; New York, 2; New Jersey, 1; North Dakota, 2; Ohio, 3; Oregon, 1; Pennsylvania, 1; South Dakota, 3; Utah, 3; Wisconsin, about 12; Wyoming, 2.

Mr. NEWLANDS. What portion of the country, as to climate and soil, do you consider best adapted to the sugar beet?

Mr. SAYLOR. That is one of the problems that the industry is working out.

Mr. NEWLANDS. You have come to no conclusion as yet?

Mr. SAYLOR. I have, sir; but we come to different conclusions as different conditions arise. For instance, all of the factories have problems to meet. We start with the factory that is doing the best work to-day, and producing sugar the cheapest; when it started in it made the worst record. It produced a low grade of beets; it produced a low tonnage to the acre.

There is no royal road to success in the beet-sugar industry. It is only when a factory has gotten down to a knowledge of the facts in its own locality, studied its own conditions, and so on, that it can make a success of the enterprise. The men in charge of it can not take the conditions or the rules laid down for producing sugar in any other country or in any other State. They must study their own conditions, and until they know them, until the farmers know just what they must do in order to get the best results, until the factory people know how to adapt themselves to the condition of the farmers to bring out the best results, they will not get the best results.

They have to train every man in the factory. There are only a few experts who go into a factory at first. I may illustrate the conditions to be encountered in putting up a factory in such a country as Michigan, by telling you that when I went there three years ago and spoke in schoolhouses to the farmers and business men of the country, they would ask me what color sugar beets were, and such questions as that. That was the general state of things that existed in the State of Michigan, which has put up in three years 15 factories.

They had to start from that state of absolute ignorance of an industry which requires the greatest intelligence in order to produce successful results and work up.

Mr. NEWLANDS. What is the duration of the formative process in a beet-sugar factory in a district of that kind?

Mr. SAYLOR. Well, shall I go back to the factory that I told you is now getting the best results?

Mr. NEWLANDS. Yes. How long does it take?

Mr. SAYLOR. That factory began its operations in 1891.

Mr. NEWLANDS. When did it reach its maximum of efficiency?

Mr. SAYLOR. It has not reached its maximum of efficiency; it is just beginning to reach results which are probably better than those of any factory in this country. The conditions that would do for that one factory would probably do fairly well for your purposes here; but I doubt whether there is another factory that could attain the same results on the same methods.

Mr. NEWLANDS. You doubt whether there is any other that would do as well?

Mr. SAYLOR. Or that could meet any cut that you may make.

Mr. NEWLANDS. For what price can that factory produce sugar?

Mr. SAYLOR. That factory, I should say, could produce sugar for 4 to 4½ cents; this is my guess, now, you understand.

Mr. NEWLANDS. Yes.

Mr. SAYLOR. This is not accurate data; it is from studying the question from all sides.

Mr. NEWLANDS. Yes.

Mr. SAYLOR. I should say that factory could produce sugar down close to 3 cents; from 3 cents to 3¼, anyhow. But the other factories in this country are producing sugar all the way from the cost of that one to 10 cents a pound.

Mr. HOPKINS. That depends, as I understand you, upon the degree of skill of the farmer in producing his beets, and the soil and climate?

Mr. SAYLOR. Yes; and in that particular instance; also in the result of thirteen years' knowledge of the business.

Mr. STEELE. In what State is that factory located?

Mr. SAYLOR. That is in Utah. Take that factory, since we are on the subject. It started out and made an unsatisfactory record. The raising of beets at that time paid none of the farmers. They were absolutely discouraged. They had their money in the business. The next year they kept doing the same things, you know, until they got through that stage of discouragement; and they now produce a beet that has an average of over 14 per cent, whereas it was as low as 9 in the early days.

They took up the principle of irrigation. It was the first place in the world where sugar beets had ever been grown by irrigation; and they had to take that principle and apply it to the sugar beet, and had to study out definitely how to apply it. After they studied it out and taught the people of the country that irrigation could be applied to the sugar beet, the fact came home to them that the sugar beet was the savior of the arid country. Since that time there have been built in Colorado alone, on that principle, enough factories to supply the entire State of Colorado with sugar.

Mr. HOPKINS. As I understand you, the more expert they become in the production of the beets the cheaper the sugar can be produced. That is correct, is it not?

Mr. SAYLOR. Yes, sir.

Mr. HOPKINS. These older factories, where they have more skilled help, can produce sugar much cheaper than they could when this duty was placed upon foreign sugars?

Mr. SAYLOR. Yes.

Mr. HOPKINS. That is a fact, is it not?

Mr. SAYLOR. Yes, sir.

Mr. HOPKINS. And a corresponding reduction now would leave them in as good condition as they were when they invested their capital and started successfully on the production of beet sugar?

Mr. SAYLOR. You are saying "them," and I am talking about a particular one.

Mr. HOPKINS. Take that one, then.

Mr. SAYLOR. Yes, sir.

Mr. HOPKINS. That would be true of that factory, would it not?

Mr. SAYLOR. It would be true of that factory.

Mr. HOPKINS. And it would be true of every other factory that worked on a scientific basis?

Mr. SAYLOR. I did not quite catch that question.

(The question was read by the stenographer.)

Mr. SAYLOR. Do you mean that they can all work down on the scale of production and cheapen the cost? Is that what you are getting at?

(The question was again read by the stenographer.)

Mr. ROBERTSON. Or did you start under a bounty?

Mr. SAYLOR. Of course the majority of them began under the Dingley bill, you know.

Mr. HOPKINS. But is it not a fact that these older factories——

Mr. SAYLOR. If you please, I would like to get at what you mean by "it is true." You say "it would be true of every other factory that worked on a scientific basis." I misunderstood your question when you said "is it not true." I was thinking of something else, and I want to know what you mean by that?

Mr. HOPKINS. Take this factory in Utah that you speak of, and is it not true that that factory could suffer a reduction in the rate of duty without any material injury to it?

Mr. SAYLOR. I think that factory would get along. I do not think it would make any money, however.

Mr. HOPKINS. And is not that statement equally applicable to every other factory that is as scientifically managed as that?

Mr. SAYLOR. But there is not any other.

Mr. HOPKINS. There is no other as scientifically managed?

Mr. SAYLOR. Yes; there are others as scientifically managed, but that is exactly what I wanted to demonstrate to you. A great many of the other old factories, you understand, started out in California, trying to produce beets with rainfall. The rainfall has not come; and those factories have not been, throughout their history, profitable producers. So they have had to go back and apply the system of irrigation; and they really have had to begin over again.

Mr. HOPKINS. Then, no duty which could be imposed would be of any permanent benefit to all the old factories of which you speak, running on the old basis?

Mr. SAYLOR. I am not referring to the duty that is imposed. I understand they are not asking for any further duty. They are asking to have it let alone.

Mr. HOPKINS. The Cubans are asking for a reduction; and what we are trying to get at is whether a reasonable reduction could be made without any material detriment to the factories that are properly located and properly managed.

Mr. SAYLOR. Now, do you want me to answer that question?

Mr. HOPKINS. I ask it for that purpose, sir.

Mr. SAYLOR. Well, sir, I say no.

Mr. HOPKINS. Why not?

Mr. SAYLOR. Simply because they have not reached such a point in producing sugar that they could meet that sort of reduction.

Mr. HOPKINS. Is it because of climatic conditions, or because of poor methods?

Mr. SAYLOR. Because they are beginning in the business. If you wish me to do so, I will give you an illustration that will explain that statement.

Mr. NEWLANDS. Let me ask you just one question before you do that.

The CHAIRMAN. I think he had better answer this question first, if you will allow him.

Mr. NEWLANDS. I though he had finished answering that question.

Mr. SAYLOR. No; I was going to give him the best answer there is.

Mr. NEWLANDS. All right.

Mr. SAYLOR. As I was about to say, take the history of Germany; it is all here. Germany has very accurate statistics as to all its industries, and Germany in 1878 had been producing sugar for a number of years, and was quite familiar with the subject. These statistics begin with 1878, and continue for twenty years. They are the statistics published by the Germans themselves with reference to their own work.

You may gather what I am driving at when I tell you that in 1878 the beets they worked contained 9.24 per cent of sugar. The percentage kept growing, year by year, mind you, as you will see if you look at this table, during the entire twenty years, up until the last one. The increase in sugar in the beets was gradual until 1899, when, as a result of a gradual growth, it was 13.34 per cent. That makes a difference of nearly 45 per cent. That is to say, when the people in Germany bought a ton of beets in 1899, they bought 45 per cent more sugar in them than they did in 1878.

That is the farmer's side of the matter. That shows you in a nut shell what the farmer has learned to do on his side in sugar production.

If you will refer to that table further it shows that at that time it took 10.82 tons of beets to make a ton of sugar. If you reverse the pyramid you find that you are going down the scale gradually, and in 1899 it took 7.1 tons. That shows that the farmer learned to put the sugar in the beet. That is the agricultural side of the proposition, gentlemen.

If you take these same tables and look at the price in 1878, when there was 9.24 per cent of sugar in the beets, you will find that sugar was worth $6.26. That price gradually went down until in 1899 the price of their sugar was $2.25, showing that the cost of production had gone down a great deal over 100 per cent. And what I am leading you up to is the fact that until the beet-sugar industry, with all other industries, has had a chance to have the benefit of knowing what conditions mean, and how to apply the conditions, until it has had this series of years of experience, it is absolutely impossible for it to reach the maximum of efficiency.

That is the reason I am willing to stand before you and say, from my knowledge of the case, that there is a future development possible in this country that means a reduction of more than half in the cost of production. That is the reason the beet-sugar people and cane-sugar people have standing before the people of this country, and are entitled to ask some sort of recognition. It is because it has been the history of sugar production from sugar beets everywhere the industry has been introduced that the cost does go down in that way; and it can only come through experience and definite knowledge of all factories in operation.

Mr. HOPKINS. Now, Mr. Saylor——

Mr. SAYLOR. Will you allow me to make just another statement? Then I will be through.

Mr. HOPKINS. Very well.

Mr. SAYLOR. I call your attention now to the fact that when the Germans bought their beets, after the farmers had had twenty years of experience in growing them, they got between 45 and 50 per cent more sugar than they did before. Moreover, it costs a great deal less money to work a ton of beets containing 13.4 per cent of sugar than a ton of beets containing 9.4 per cent. The cost to the factory of handling the lower grade of beets is enormous. One of the things that interferes with the factory, and one of the conditions they have to meet, is an impure beet. They have to eliminate the impurities of those beets. They have to do so in order to get out their sugar, and the cost of production decreases in a considerable ratio as the beet contains a greater percentage of saccharine matter and is of greater purity.

Mr. HOPKINS. Now, conceding that the beet-sugar industry needs protection, has not the matter been sufficiently experimented upon in this country so that now people who locate their factories and their beet-sugar plantations (if you can apply that term to them) know what localities are best suited to them, and are able to produce sugar very much cheaper than they could when this duty was put upon foreign sugar?

Mr. SAYLOR. They have now a pretty good knowledge of the localities; yes, sir.

Mr. HOPKINS. And the capital that is invested?

Mr. SAYLOR. But I am not answering all that question at once. I say they have a good knowledge of the localities where they should put the factories.

Mr. HOPKINS. Is it not a fact that they can invest capital and produce beet sugar much cheaper than they could five years ago?

Mr. SAYLOR. I think they can produce sugar cheaper than they could five years ago; that is, if they have had five years' experience.

Mr. HOPKINS. Yes, sir; and they can therefore suffer a corresponding reduction in the rate of duty, can they not, and still be on as good a basis as they were five years ago?

Mr. SAYLOR. But, you understand——

Mr. HOPKINS. No, no; answer my question.

Mr. SAYLOR. But I can not answer it in that way.

Mr. HOPKINS. Is not that correct?

Mr. SAYLOR. No, sir; it is not correct.

Mr. HOPKINS. Why not?

Mr. SAYLOR. That is what I was going to say. If a concern is not making money to begin with, how can you say that it can stand a reduction?

Mr. HOPKINS. I do not admit your argument.

Mr. SAYLOR. But that is the argument I am making.

Mr. HOPKINS. But I do not admit it.

Mr. SAYLOR. Well, that is all right.

Mr. HOPKINS. Now, take this proposition. If it has been possible for these beet-sugar industries to be started and developed under existing rates, according to your statement, they can produce sugar cheaper than they could five years ago?

Mr. SAYLOR. Surely.

Mr. HOPKINS. Yes. Now, if they could be established five years ago, can they not still be established under a lower rate than we have at the present time?

Mr. SAYLOR. That is, those ones—those particular ones.

Mr. HOPKINS. I mean others, under similar conditions?

Mr. SAYLOR. But you can not take a new man in the business and give him the information possessed by the one who has been working five years at it.

Mr. HOPKINS. Why, my dear sir, is not the information which you have acquired out there in Utah open to the general public?

Mr. SAYLOR. No, sir.

Mr. HOPKINS. It is not?

Mr. SAYLOR. No sir.

Mr. HOPKINS. Are you not making it open to-day?

Mr. SAYLOR. Just as much as anybody can get it.

Mr. HOPKINS. Are you not telling the American farmers that in order to produce sugar beets successfully they want the climate and other conditions which you have described there in Utah?

Mr. SAYLOR. Yes, sir; but it takes actual experience in the work in order to enable them to do it.

Mr. HOPKINS. Then if anybody wants to invest in this industry, if your information is worth anything at all, they would be liable to follow it, would they not?

Mr. GROSVENOR. But they can not go and get the climate of Utah and take it wherever they want it.

Mr. HOPKINS. Well, they can go into Utah and get it. You are not seeking, are you, to have a duty here that will enable them to establish these beet-sugar factories in countries not adapted to them by nature?

Mr. SAYLOR. No, sir; I am not seeking anything.

Mr. HOPKINS. That will answer General Grosvenor on that point.

Mr. METCALF. Let me ask you this question: In arriving at the cost of the sugar beets at the present time, do you not figure in the amount you have to pay for them?

Mr. SAYLOR. Yes, sir.

Mr. METCALF. What is the price of sugar beets to-day?

Mr. SAYLOR. I am gathering that data for this year. I haven't it yet. I notice that in the census year it was $4.34. Now——

Mr. METCALF. What was it three or four years ago—do you know?

Mr. SAYLOR. I think it averaged somewhere between 4 and 4¼; somewhere along there. I can not give you the figures exactly. They are in my reports, but I have not the reports here.

Mr. METCALF. I would like to ask you this question: Is the soil of Nevada fit for the raising of the sugar beet?

Mr. SAYLOR. Yes, sir; Nevada has shown the best results, I think, of any place in the United States. [Laughter.]

Mr. GROSVENOR. There it is again. Start them in Nevada.

Mr. SAYLOR. But I want to make that clear, if you please. Since you have asked me that question I do not want to obscure you any more than you are already. [Laughter.]

Mr. NEWLANDS. You were speaking of the successful production of beet sugar in Utah?

Mr. SAYLOR. Yes.

Mr. NEWLANDS. Has not that region an advantage over the State of Michigan in the freight rate from the coast to Utah, and does not that operate as a protection?

Mr. SAYLOR. From the coast?

Mr. NEWLANDS. Yes.

Mr. SAYLOR. It may be that the rate is lower; but what advantage would it be?

Mr. NEWLANDS. Could not sugar produced in Utah stand a reduction in the tariff better than sugar produced in Michigan, because the higher freight rate from the Atlantic coast to Michigan would operate as somewhat of a protection to the Utah sugar?

Mr. SAYLOR. I am not familiar with the freight rates.

Mr. NEWLANDS. You are not?

Mr. SAYLOR. No, sir. Mr. Chairman, I was going to say this, and I want to make this point clear, because it is the basic part of this whole thing. The beet-sugar industry can only be successfully introduced in this country, and factories will only go in and make the attempt when the opportunity is offered them to work out and solve the problems they have to encounter. To-day they are producing sugar at something like 4 cents and over per pound.

I offer it to you as my best knowledge and belief that the time is coming when they can cut down that cost of production one-half, as Germany cut down her cost of production one-half; and when you say to me, "Why do you not take what the factory in Utah has learned and apply it to another factory?" I answer you back, "Why did I not take what the professor knew when I entered college and go on about my business?" Why, I had to dig it out for myself.

Mr. HOPKINS. You may not have had the capacity at that time; but that is a very different problem.

Mr. SAYLOR. No; it is the same kind of a problem.

Mr. HOPKINS. The development of an individual like you and the putting of capital into a new industry with the soil adapted to it are very different propositions.

Mr. SAYLOR. I beg your pardon. It is the same kind of a proposition until they know how to work out their own conditions and apply them.

Mr. NEWLANDS. Do you expect beet sugar to be produced anywhere in this country within the next ten years for less than 3 cents a pound?

Mr. SAYLOR. For less than 3 cents a pound?

Mr. NEWLANDS. Yes.

Mr. SAYLOR. Not in ten years; no, sir. I should say it ought to be produced at considerably less by the factories that are now in the business and have experience.

But mind you, to manufacture what we need it will take 500 more factories at least. Ten years gives only ten years of experience. The factories that are now in the business and have had their ten years of experience will be producing sugar very much cheaper.

Mr. NEWLANDS. At less than 3 cents?

Mr. SAYLOR. I should think they ought to be producing it somewhere around there.

Mr. NEWLANDS. At what price do you think it could be produced?

Mr. SAYLOR. Well, that is problematic; it is prophecy.

Mr. NEWLANDS. But you think Cuban sugar can be produced now, and was produced two years ago, at $1.75 per 100 pounds?

Mr. ROBERTSON. Less than that; he said in some sections $1.25 and $1.50.

Mr. HOPKINS. He said $1.75, as I understood it, and that it could be produced for $1.25 in some places.

Mr. METCALF. That was not his answer. He said from $1.50 to $1.75.

Mr. ROBERTSON. No, sir; from $1.25 to $1.75.

Mr. METCALF. The witness should know what he said.

Mr. HOPKINS. What did you say?

Mr. SAYLOR. I said they were producing sugar, to my best belief, for from $1.25 to $1.75 per 100 pounds, and I believe the average would be about $1.50.

Mr. ROBERTSON. That is for 100 pounds, is it?

Mr. SAYLOR. Yes; $1.50 per 100 pounds.

Mr. NEWLANDS. Was I right in understanding you as saying that you thought they could still further reduce the cost of the production of sugar there?

Mr. SAYLOR. No; you were not right in that?

Mr. NEWLANDS. Do you think they can still further reduce it?

Mr. SAYLOR. I think it is just as well now to carry that principle along; and there is where the sugar interests of this country must stand. They are working now on a high cost of production, with every prospect in the world of working down to a lower cost of production. Those countries that are coming under the influence of our American conditions must, as time goes on, pay higher wages.

They must of necessity work upon the cost of production. If you will look in my report on Hawaii, you will find that I pointed out exactly what would happen in Hawaii—that they were going to have to pay higher wages. That is what I figured out at that time, and it has happened just in that way. Wages have been coming up. The wage question is bothering them. It is going to bother them eventually in Cuba. But the reason the beet-sugar interests of this country have standing room with the cane-sugar interests is that they are coming down the scale and the Cuban production is going up the scale. Until they reach a common point—until they come together on a fair basis—I do not see how they can safely make any concessions.

Mr. NEWLANDS. But you think that in time the conditions will be equalized, do you?

Mr. SAYLOR. Yes, sir; I do. I think so.

Mr. NEWLANDS. Do you say that Hawaii went through that process?

Mr. SAYLOR. I say she is starting on it.

Mr. NEWLANDS. Has Hawaii to-day, under her tariff, and with the higher price of labor, any great advantage over our cane-sugar production in Louisiana or our beet-sugar production at the best factories of which you speak in the West?

Mr. SAYLOR. I think there is no place that grows sugar that can get the results that the Hawaiian Islands can. The only reason she comes in in any comparison with Cuba is that it costs her more to produce it.

Mr. NEWLANDS. The labor costs her more?

Mr. SAYLOR. The labor costs her more.

Mr. NEWLANDS. Otherwise the conditions are even more favorable for the production of sugar in Hawaii than in Cuba?

Mr. SAYLOR. Yes, sir; that is right.

Mr. NEWLANDS. And yet you say they felt there the effect of the increased cost of labor?

Mr. SAYLOR. Yes, sir.

Mr. NEWLANDS. And that the tendency is now to equalize that increase because it is gradually approaching the cost in this country?

Mr. SAYLOR. It is working toward that point. There is no doubt but that it will have both effects—that our cost of production will go down as we become more effective in our work and methods and in understanding our conditions, and their cost will come up by reason of paying higher wages.

Mr. ROBERTSON. So far as acreage goes, has Hawaii reached her maximum of sugar production?

Mr. SAYLOR. I think so. That was the feeling of those best posted in Hawaii—that they could produce successfully somewhere near 400,000 tons.

Mr. ROBERTSON. I am talking about acreage—acres of land, area.

Mr. SAYLOR. That increase comes through increasing acreage.

Mr. ROBERTSON. Is there a limit to that?

Mr. SAYLOR. Yes, sir. I say the maximum that they could produce successfully would be 400,000 tons. Now, it was the feeling of those best posted that they might produce 500,000 tons, but that the last 100,000 would be produced at a cost that the first 400,000 would have to carry along.

Mr. ROBERTSON. So you put the maximum development of sugar in Hawaii at 450,000 tons?

Mr. SAYLOR. Yes, sir.

Mr. ROBERTSON. That is the utmost possibility?

Mr. SAYLOR. I think so, of profitable sugar production.

Mr. NEWLANDS. You stated that the cost of production of sugar in Cuba two years ago was $1.75 per 100 pounds. That was for unrefined sugar, was it not?

Mr. SAYLOR. Yes, sir. I did not state that, though, in just that way.

Mr. NEWLANDS. You did not state that it was unrefined?

Mr. SAYLOR. No; I did not state that it was $1.75.

Mr. NEWLANDS. I understood you to mention $1.75, but to state that the average was about $1.50.

Mr. SAYLOR. Yes, sir; that is what I said.

Mr. NEWLANDS. That was for unrefined sugar, was it not?

Mr. SAYLOR. Yes, sir.

Mr. NEWLANDS. What was the cost of refining that sugar?

Mr. STEELE. We have had that half a dozen times.

Mr. SAYLOR. Well, you know, I am not an expert in refining.

Mr. NEWLANDS. I know, but what is the price paid for refining?

Mr. ROBERTSON. Where?

Mr. NEWLANDS. In this country.

Mr. ROBERTSON. Do you mean by the sugar refiners or the beet-sugar people?

Mr. GROSVENOR. They do not pay for refining.

Mr. SAYLOR. They do not refine sugar.

Mr. NEWLANDS. Well, what allowance do they make for refining?

A GENTLEMAN. One cent a pound.

Mr. NEWLANDS. That would make the cost $2.50 per 100 pounds for that sugar refined, then, as against 3 cents in this Utah factory of which you spoke, would it not?

Mr. STEELE. I understood it was from 50 to 65.

Mr. ROBERTSON. It seems to me that that is a question that only an expert could answer.

The CHAIRMAN. The experts say from 50 to 62½ cents.

Mr. NEWLANDS. I simply wanted to draw from the witness a comparison between the price of refined sugar in Cuba and in Utah. He was speaking of the cost of refined sugar in Utah and raw sugar in Cuba.

Mr. SAYLOR. You understand that after that sugar is produced at a certain cost it must be sold at a profit. Then it comes to the refiner at a different cost, with the profit of shipping added. Then the refiner refines it and puts on his profit, and then the sugar goes into the market.

Mr. ROBERTSON. What was the sugar output of Hawaii last year? What was her production?

Mr. SAYLOR. I think their shipment to this country, outside of what they consumed, was 309,000 tons.

Mr. ROBERTSON. Was that in 1901?

Mr. SAYLOR. That was for the fiscal year 1901.

Mr. ROBERTSON. Ending June 30?

Mr. SAYLOR. Yes, sir.

ADDITIONAL STATEMENT OF MR. WILLIAM L. BASS,

West Indian sugar interests.

PROPOSES A MEASURE FOR THE RELIEF OF THE CUBAN SUGAR INDUSTRY.

The CHAIRMAN. Have you anything to state in addition to what you stated the other day?

Mr. BASS. Yes, sir; I have an entirely new feature to present.

The CHAIRMAN. How much time do you want?

Mr. BASS. Exactly thirty minutes by the watch.

The CHAIRMAN. Well, we will compromise with you and give you fifteen.

Mr. BASS. All right, sir; you can cut me off when I have had fifteen minutes.

The suggestion which I have the honor to respectfully submit for the consideration of the honorable chairman and gentlemen of the Ways and Means Committee is that which many individuals well versed in the intricacies of the sugar question consider an appropriate measure to be tendered for the immediate relief to the Cuban sugar industry, and one devoid of all harmful influences or results.

It is exactly the opposite of any percentage reduction of American duty in favor of Cuban products, particularly that of sugar. It is entirely distinct from any suggestion to remove the differential duty on refined sugars.

It is the desire of the Administration, in the understanding of many, to assist the industrial resources of Cuba in such a manner as will not tend to precipitate annexation or to demoralize existing American interests.

Is it not the desire of the Administration that if there is to be any annexing of Cuba it must be instigated at the express desire of its inhabitants, and this after it has been accorded its political identity, without the least trace of any influences having been brought to bear by the authorities of this great nation which history might record as a subterfuge to deprive the Cubans of their promised liberty?

The purpose of this presentation is to have you consider the pro-

priety of granting at an early date at least the exemption of the differential duty on Cuban unrefined sugars, so long as the island remains unannexed, and under no circumstance to grant a percentage reduction without adding the exemption of the differential duty on unrefined sugars.

If in your judgment the Cuban planters should be deemed deserving of both a percentage reduction of duty on unrefined sugars and the exemption of the differential duty on unrefined sugars, the Cubans will have to appoint a more competent one than myself to express their thanks. In such an instance your attention, however, will be called to some disastrous conditions of the domestic sugar producers at a time removed inversely in proportion to such percentage exemption of duty as may be granted to free Cuba's products.

You have already been requested to refrain from adopting any measure which would operate to the disadvantage of the many, both in and outside of Cuba, and which would tend to demoralize the resources upon which the island must count for its revenue.

Whatever may be the status of Cuba in the immediate or distant future, this measure will in no wise cause any complications; for it is purely industrial and nonpolitical.

This measure is offered as a substitute for a percentage reduction of duty, and one the nature of which will not in any wise prompt an impairing of the income of the Federal Government.

The plan involves merely providing that the Cubans shall pay as much as at present. Should they elect to pay even higher duties, they will be financially benefited at once, and this without requiring added capital or time in which to prepare. This measure is applicable at once or later, with Cuba unannexed, and with restricted trade relations; otherwise it is unnecessary.

The day that Cuba becomes annexed and can enjoy the commercial advantages of the United States Constitution, either by direct provision of Congress or by virtue of Congress failing to act, the Cuban sugar manufacturers will be largely obliged to assist themselves by the means offered in this proposed measure.

This measure has the advantage of being one which the Administration can be judiciously advised to institute at once, regardless of any legislative delay. It will in no wise interfere with the existing arrangements for the Federal Government's income; on the contrary, it will prompt an increase. It is merely necessary to decide that the differential duties, or those corresponding to color, of the existing tariff on unrefined Cuban sugars shall be ignored.

Though the evidence, both material and sentimental, which has taken up so much valuable time might prompt many not versed in the intricacies of the sugar business to consider that a percentage reduction on unrefined Cuban sugars was the readiest means to effect the desirable relief to the Cuban sugar industry, the attempt is nevertheless undertaken to place this subject before you in a light other than heretofore presented.

A percentage reduction on unrefined Cuban sugars would work immense harm in the very quarters in which this honorable body would not, under any circumstances, deliberately or knowingly plan to effect it.

Permit me to thank the honorable chairman and members of this committee for the opportunity afforded to present the suggestion, not

in the interests of myself alone, but of a number the magnitude of which the morrow will best indicate.

Those most interested in this presentation of the subject are the Cuban planters, be their nationality what it may, as well as every cane-sugar planter located elsewhere than or within the bounds of the United States and Cuba, whose exclusive market for his products is the United States. This proposition has not up to this time been sifted out and prepared for a concise presentation to your good selves.

For a more ready understanding the terms "refined" and "unrefined" will be used, the latter when used in connection with sugar corresponding to the current word "raw."

First. We have to assume that the existing duty on imported refined sugars is a legitimate protection for any grade of the domestic refined sugars.

Second. The duty on what is currently termed "raw sugars," or more properly speaking, "unrefined sugars," must be assumed to be both a legitimate and necessary protection for American-made sugars. Time has demonstrated the propriety of this duty as a protective measure. Without it it would be absolutely impossible for any sugar, whether cane or beet, to be produced in the north temperate portion of the United States in competition with sugars from any civilized and purely tropical parts.

Third. There is a differential or color restriction imposed upon the higher grades of unrefined sugars, and this it is proposed to concede to the Cubans in their present straits.

The suggestion which is presented to this honorable body is this: If any relief is to be accorded in the near future to the Cuban industry, and apart from any measures which may affect other commodities, that such relief be the removal of the differential duty, or color restriction, on Cuban unrefined sugars imported into the United States.

Ample testimony is already in the hands of the committee to the effect that such a measure is approved of by the following interests:

(1) The American refining interests.

(2) The American beet-sugar interests.

(3) The Hawaiian and Porto Rico sugar interests.

(4) The Louisiana sugar interests.

(5) The independent American planters who are importers and located elsewhere than in Cuba.

(6) The Cuban sugar planters themselves.

The advantages of the suggestion are:

(1) It does not decrease the Federal Government's income on unrefined sugars.

(2) It affords a prompt and material relief to the Cuban sugar planters.

(3) It leaves the American refiners protected with the differential duty on all imported refined sugars.

(4) It leaves the Louisiana unrefined sugars protected with the existing duty on imported unrefined sugars.

(5) It leaves the Louisiana refined sugars doubly protected, (*a*) by the existing duty on unrefined, and (*b*) by the differential duty on refined sugar.

(6) It leaves the Hawaii and Porto Rico sugar, refined or unrefined, correspondingly protected, the same as the Louisiana sugars.

(7) It leaves the American beet sugar protected by a double duty,

(*a*) the existing duty on unrefined, and (*b*) the differential duty on refined sugar.

(8) It leaves American planters in Cuba and elsewhere materially protected.

(9) While affording immediate relief to the Cuban planters it does not tend to demoralize, whether free or annexed, the future economic condition of Cuba.

My task is not to play upon your fancies, or to deceive you, but to place before you, not only in the capacity of legislators, but of judge and jury, ideas on the proper understanding of which depend the happiness and welfare of many fellow-beings.

Under the circumstances an effort will be made to prompt you to hesitate prior to deciding to extend a percentage reduction of duty to the unrefined sugars of Cuba; for it is a measure which would work untold misery upon many, which would positively benefit no one, and which would prompt regret.

It has been stated that the American refining interests approve of this suggestion. It in no wise interferes with such existing duties as are imposed upon any imported refined sugars.

You will pardon my recalling to your memory that which without doubt you are already familiar with in this connection. It is the fact that there is a refining interest pure and simple, as well as a combined manufacturing and refining interest, in this country. The former operates exclusively with a primary purchased product, and the other refines its own and the primary product of others.

The former are referred to as refining interests, and the interests of the latter are better entertained by considering them in the category of American beet-sugar factories.

Furthermore, it is a fact that to the mere refining interests it is immaterial whether any duty is levied by this Government upon unrefined sugars or not. So long as there exists the duty on refined sugars, these interests are fully protected and amply satisfied.

Such, however, is not the case with the American beet-sugar industry. The refining element in this industry is dependent upon the protection accorded to pure and simple refiners; but they are furthermore dependent for the protection of the production of their primary product upon the duties at present levied upon the unrefined sugars.

I trust this makes clear to you, gentlemen, the indifference on the part of the purely refining interests as to whether a small or large percentage reduction of the duty on unrefined sugars be granted to the Cuban sugar interests.

Mr. Hawley came before you not in the interests of the refiners, but of the American Cuban planters. His glittering generalities ably attest this fact.

Mr. Post, of New York, did not appear before you in the interest of the Cuban planters, but in the capacity of a refiners' broker and refiner, and indicated to you the indifference of his interests to any measure so long as it did not take off the duty on refined sugars.

As long as no step is contemplated which will in any wise reduce the existing duty on refined sugars, I trust it is evident that the proposition involves no menace to the refining interests to this country.

To substantiate this assertion, you will permit me to quote from the letter, if I mistake not, from Mr. John D. Spreckles, president of the Spreckles Sugar Company of San Francisco, which was addressed to

one of the members of this honorable committee, Mr. Long. In this letter the statement is specifically made that—

> Should Congress deem it advisable to make a reasonable reduction on raw sugars from Cuba, we as beet-sugar manufacturers can stand such a reduction on such tariff, and still, with such decreased duties, feel assured of a legitimate profit on the actual money invested.

The foregoing approval is made by this company in the dual capacity of a beet-sugar manufacturer and a refiner of beet sugar.

If, in this connection, further substantiation be necessary, permit me to quote from another paragraph of the same letter:

> Whatever concession, however, is made in the duty on raw sugar, we desire your cooperation for the continuance of the protection on refined sugar imported from any country, as any reduction in said duty would cause more general hardship to beet-sugar manufacturers than a reasonable reduction of the duty on raw sugar.

We have here the specific statement that so long as the duty is not affected as regards refined sugars, there is no objection to such steps as might be taken with a view to removing some slight restriction upon raw or unrefined Cuban sugars.

(Mr. Bass not having finished his remarks, was given permission by the chairman to print the remainder of them, as follows:)

The next assertion was to the effect that this measure has the indorsement of the American beet-sugar interests. In this connection permit me to call your attention to the indications repeatedly made by the representatives of the beet-sugar industry before this body, and which are already in the records of these hearings—that they favored the removal of the differential, or color restriction, in preference to a percentage reduction of duty being tendered the Cuban unrefined sugars.

To indicate to you gentlemen the harmony of interests which exist between the beet-sugar element grouped under the able leadership of Mr. H. T. Oxnard and the Spreckels Sugar Company of San Francisco, permit me to quote from the letter above referred to:

> Should Congress deem it advisable to make a reasonable reduction on raw sugars from Cuba, we, as beet-sugar manufacturers, can stand such a reduction on such tariff, and still, with such decreased duties, feel assured of a legitimate profit on the actual money investment.

With the foregoing, the approval of the American beet-sugar interests is indicated.

The statement is made that the idea meets with the approval of the Hawaiian and Porto Rico sugar interests.

The planters in both of these localities to-day enjoy the privilege of manufacturing and importing into the balance of the country any grade of refined or unrefined sugars which they may elect to make, or which is the more readily produced with such equipment as they have in their factories.

The mechanical status of the Porto Rico sugar industry, it is true, is far behind the age, and at this date no sugar is refined on the island.

The Hawaiian planters, on the contrary, have the most approved appliances.

Both of these communities, the one situated to the southeast and the other to the southwest, are located within the purely tropical zone, and are thus able to enjoy all the corresponding climatic advantages.

Being within the United States they enjoy the double protection

(1) of existing duties on unrefined and (2) the corresponding duty upon refined sugars.

The sugar planters of both communities are fully aware of the results which would take place in their respective localities were a simple percentage reduction of duty conceded, either reciprocally or gratuitously to the Cuban unrefined sugars.

The gentleman who upheld the interests of Hawaii in the presence of this committee admitted that the condition of the sugar industry in that locality readily permitted of at least a 10 per cent favor to the Cubans. Under the circumstances the Hawaiian sugar interests can not offer any well-founded objections to assisting the Cuban sugar industry as long as it is not by a percentage reduction, but rather a measure to afford the Cubans an opportunity to assist themselves without materially affecting the many American sugar interests. The statement is made that the proposition bears the approval of the Louisiana interests.

While aware of the circumstances that when the subject of taking off a differential was broached before this honorable body an opposition was indicated from among some of the Louisiana constituents, this assertion nevertheless holds good.

Both in an industrial and political sense this is a country of majorities.

Such individuals in Louisiana as primarily produce a refined sugar are in a marked minority. These already enjoy a double protection, and will continue to do so even should this suggestion be adopted. They have the protection corresponding to the unrefined product and the added protection on the refined product, and they are not to be accused of being unreasonable. The measure proposed surely leaves them too well provided for to warrant any opposition on their part to what is proposed, for any opposition in this instance is liable to work disastrous consequences upon their Louisiana and other associates as well as themselves.

While recognizing that a large proportion of the Louisiana crop is in the form of high-grade unrefined sugars, it is nevertheless a fact that these planters of high-grade unrefined sugars as well as the planters who produce lower grades are fully alive to the difference which would result to their interests by granting to the Cuban a percentage reduction instead of the removal of the color restriction.

Even a slight percentage reduction of duty in favor of Cuban unrefined sugars would have the effect of immediately lowering the value of every pound of Louisiana sugar which is dependent for its marketing upon the local refineries.

It is indeed difficult to conceive that, in an extremity like the present, when something is surely going to be done, that the well informed Louisiana planter, with a full understanding of the terms color restriction on unrefined sugars and a percentage reduction of duty can be found who would approve of granting the latter to the Cubans.

The next announcement was to the effect that this measure was approved of by the independent or scattered Americans who are sugar planters, have exclusively the United States for their market, and happen to be located elsewhere than in Cuba.

These understand that the great Cuban crop of unrefined sugar coming to this market, and enjoying a percentage reduction of custom duties, permits the refiners who are the sole purchasers of all unrefined imported sugars, due to the existing color restraint on unrefined

sugars, to bear down or lower the existing low price of unrefined sugars from both Cuba and elsewhere. This will result for the reason that when the Cubans enjoy a 25 per cent reduction of import duties they will have no objection to parting with a slight or even material part of this advantage so long as they are able to effect a ready sale of their product and still enjoy some actual advantage over other producers who do not happen to be located in Cuba. This, on the one hand. On the other, the cartel sugars of Europe, ever prepared as they are to be depressed, is an important factor for consideration.

Between European cartel sugars and reduced duty Cuban sugars the market value of imported and local unrefined sugars can be readily depressed far beyond present limitations. It is in this process of reduction that the advantage that it is alleged will accrue to the Cubans by the granting of a percentage reduction of duty will vaporize.

There are many Americans most materially and seriously interested in this particular feature, and these more than request—they implore you to consider the disastrous results of this possibility.

The sixth assertion is that the Cuban planters approved of the proposition. No surprise should be occasioned by this statement.

Every Cuban sugar planter hopes that some assistance may be tendered to him at an early date. They are not concerning themselves as to what may be the particular remedy. Their ideas vary.

A few desire annexation regardless of whether the United States Supreme Court will allow them the commercial privileges of the Constitution or otherwise.

A few desire annexation, but with the specific condition of enjoying absolute free commercial intercourse with the balance of the nation.

A few desire a percentage reduction in the immediate future, regardless of its consequences and whether the island be annexed or continue as an independent community.

Many will be more than satisfied to enjoy, until the island is annexed, the commercial advantages which will accrue to them, when tendered the privilege to import any grade of unrefined sugar and pay the corresponding duty, provided that the differential duty corresponding to color, or as it is currently termed the color restriction, be removed.

The importance of this apparently insignificant grant and the magnitude of the advantage tendered to the Cuban sugar industry can readily be made clear to the gentlemen of this committee.

What would be the status of the Louisiana, the American beet, the Hawaiian, or the Porto Rico sugar industry if by an act of Congress either of these were to be denied the privilege of locally marketing any sugar which was not refined, and were obliged to dispose of all unrefined sugars to the refineries?

This question best indicates the actual condition to which imported unrefined sugars are subject and which results solely from the maintaining of the existing differential duty on imported unrefined sugars.

American producers of unrefined sugars recognize what a material advantage is this, viz, the privilege to dispose of high-grade unrefined products, regardless of the extra cost of their production.

The removal of the differential duty or color restriction on unrefined Cuban sugars will permit the Cuban planter to dispose of an unrefined sugar at a price materially above what the American refiners will offer for them, while the American public will be able to acquire

the various grades of both imported and local sugars at a slight reduction from the prices currently maintained.

The beneficial results of such a measure would take effect almost immediately upon its adoption, or at the latest within three weeks, and in many instances at an ealier date. This from the fact that many estates on the island of Cuba have already prepared for such an eventuality.

Every factory in Cuba would only have to disburse from $150 to $500 to install a sulphur furnace and bath, or bleaching outfit, through which to pass the juice when it was being pumped from the mill to the next step in the process of manufacture, purge hot and rinse the unrefined sugars while in the centrifugals.

These bleachers would require a week to manufacture, a week to ship, and another week for local transportation and installation. Many would be constructed locally.

When it becomes known that a hearing has been given to this specific suggestion, many planters will not wait for the measure to be adopted, but install these bleachers in anticipation.

The harm instead of the benefit which would accrue to the Cuban sugar interests were a percentage reduction granted instead of the removal of the differential duties on unrefined sugars has been referred to.

The value of their unrefined sugars under no circumstances would be benefited by the entire amount of percentage reduction granted, so long as the differential restriction on imported unrefined remained operative.

The subject of consideration before this honorable body is sugar and not diplomacy, and such as have been honored with the task of pleading the cause of my native land and of the Cuban sugar interests should have placed before this honorable body the petition to grant, not only a material percentage reduction of duty, but the removal of the differential on unrefined sugars, and this accompanied by the statement that anything else, other than free trade or annexation, would not benefit them in the least.

The subject has been herein considered in connection with free Cuba, and the contemplated granting of a slight percentage reduction of duty, say to the extent of 25 per cent. The various influences which become detrimentally operative to all concerned should a grant of percentage reduction, however limited, be made are aggravated when the percentage is increased to, say, 50 or 75 per cent.

Everyone engaged in the capacity of manager or owner in the manufacture of sugar recognizes that this measure will afford a prompt and material relief to the Cuban planters, which can not be disproved by anyone, whether planter or other.

It will take the form of permitting him to get some part of that ever-existing difference between the price that the refiners would give him for his present differentially restricted and unrefined product and the price that the refiners are selling refined sugars to the American public.

This difference is due to the duties on both the unrefined and refined sugars and the differential on unrefined sugars. At present it is approximately $1.25 per 100.

What the Cuban planter can acquire by his own efforts and ready means, should this suggestion be made operative, is readily seen to be

equivalent to more than he could get from a 25 per cent reduction of existing duty, or 42 cents per 100.

He is at present receiving for his relatively high grade unrefined product, approximately, but $1.50 per 100. The unrefined imported sugars, duty paid, are at $3.50, and the quotation of this commodity after being refined in the States is $3.75 (see quotations January 25, 1902), leaving a difference of $1.25. This may not appear as much, but any part of $1.25 added to $1.50 is not to be lightly considered by sugar planters.

Of the $3.50 nearly $2 should be deducted for import duty and charges. This $2 taken from $3.50 leaves the Cuban or other importer at present with a little over $1.50 per 100 pounds.

The Cuban planter has but to slightly improve his product (at no appreciable expense) and pay a slight increase of import duty, corresponding to the higher purity, and he is immediately afforded an opportunity to secure a part of the $1.25, but not all, because his product is still unrefined.

To one not actually engaged in the manufacture of sugar it might seem strange that the Cuban sugar planters could be aided by arranging to have them, if they so elect, pay higher duties.

Should the honorable chairman of the Ways and Means Committee inquire of a neutral sugar planter, say of Jamaica, if he would be satisfied with the removal of the differential duty on unrefined sugar or color restriction, the importance of this suggestion would be made further manifest.

It is a measure which, should there arise any international controversies in connection with "the most-favored-nation clause," the President may, without detriment to the interest of anyone, concede to any and all applicants who may not happen to be associated with any bounty.

The extension of this grant to others than the Cubans will not be detrimental to the interests of the Cuban planters, as they are by the status of their mechanical equipment well prepared to produce the higher grades of unrefined sugars, and thus be protected against such competition as might indirectly arise in connection with the importation of low-grade Java and Philippine unrefined sugars.

The delay in presenting this specific suggestion was due to the demoralization resulting from the consternation that existed among the numerous interested parties when it became evident that the relief to the Cubans, in that which affected the particular product, sugar, was to take the form of a simple percentage reduction of existing duties on unrefined Cuban sugars imported into this country. The feature of whether it was to be tendered as a reciprocal or magnanimous measure was not a consideration.

It was not until the termination of the hearing on Saturday, January 25, 1902, that it became apparent to the various factions that each of the five, which were liable to be so violently affected, and which had apparently opposed any relief to the Cuban sugar interests, were unanimous in their entertaining no reluctance to have the Cuban sugar interests assisted along the line of doing away with the differential duty on unrefined sugars.

The many advantages of this proposition, in so far as it leaves unaltered the numerous existing American interests, do not require to be enlarged upon. They have already been announced.

In this you have presented a complete suggestion, viz, the removal of the differential duty, or that corresponding to color restriction, upon Cuban unrefined sugars imported into the United States.

Mark well the term "unrefined."

This proposition does not involve the removal, to the detriment of either the Federal Government's income or American producers, any part of the duty on either unrefined sugars or refined sugars.

This differential on imported unrefined sugars, though apparently an insignificant feature, is, nevertheless, a grievous restriction, and its removal would promote material relief. Its existence works harm to both the American and other producers and the American consumers.

Were this suggestion offered solely as a substitute for a contemplated percentage reduction, and for the purposes of complicating matters before this honorable committee, this presentation would stop here. But such is not the case. The purpose of proposing this measure is to hasten and not to delay such steps as may have for their purpose to provide an immediate relief for Cuba. In the furtherance of this aim a brief and concise defining of the two words, "refined" and "unrefined" or "raw" sugars, is given.

Refined sugars are such as have been manufactured in connection with the use of vivified "boneblack," by some termed "animal charcoal," and others "char."

Unrefined or raw sugars are such as have been manufactured without the use of this "boneblack" or "char."

These definitions are specific and hold good for the many grades of both refined or unrefined sugars regardless of their degree of purity.

Unrefined sugars vary from the lowest to the very highest degree of purity. To produce the latter in an unrefined state is a wasteful process and seldomed practiced.

Refined sugars are of various grades of purity, for when the refiner supplies himself with unrefined sugars, his entire refined product is not exclusively of the highest grade.

This measure if adopted would promote such advantageous conditions not only to the Cuban sugar industry, be the political status of the island what it may, but to others, and prove of such marked advantage to both the American producers and consumers of all grades of sugar, that at no distant date this body would be called upon to consider the advisability of removing from the tariff this particular feature which is here suggested should be granted to the Cuban planters at this juncture.

The press by no means voices the ideas of the informed individual, for when the Spreckels letter was printed parts herein quoted were not used. In order that no unjust accusation may be directed against such as have appeared before this honorable body, you will permit me to quote from the press the following:

> Another prop has been knocked from under the beet-sugar men and their supporters in Congress by Prof. John Bassett Moore.

Professor Moore's evidence before this honorable body is summarized by the quotation attributed to him:

> I am of the opinion that the most-favored-nation clause does not stand in the way of the mutual reduction of duties on trade with Cuba.

Mr. Chairman and gentlemen, permit me to respectfully inquire, Has any individual come before this body objecting to "the mutual reduction of duties on trade with Cuba," or, in other words, reciprocity?

Colonel Bliss has made manifest to you the absence of that deplorable condition so widely announced by the press.

The indirectness of Mr. Hawley's replies to the repeated inquiries in this regard need no recalling.

(The foregoing was not read, see p. 596.)

The CHAIRMAN. This is the last gentleman who desires to appear, so far as I know.

The committee thereupon adjourned.

APPENDIX.

The following tables accompany Special Agent Saylor's statement, page 577:

TABLE I.—STATISTICS OF GROWTH OF BEET-SUGAR INDUSTRY.

(See page 582.)

We have referred to the last census period as showing the rapid growth of this industry in this country, it having 31 factories. Since that time 11 other factories have been put in operation, located at the following places, with the daily capacity designated: Lyons, N. Y., 600 tons; Rocky Ford, Colo., 1,000 tons; Sugar City, Colo., 500 tons; Bingham Junction, Utah, 350 tons; Provo, Utah, 350 tons; Lansing, Mich., 600 tons; Saginaw, Mich., 600 tons; Loveland, Colo., 1,000 tons; Menomonee Falls, Wis., 500 tons; Salzbury, Mich., 400 tons; Logan, Utah, 400 tons.

The following places are building factories, or have all the details settled for building factories, for the crop of 1902: Sebewaing, Mich., 600 tons; Carrollton, Mich., 600 tons; Shelby, Ind., 500 tons; Mount Clements, Mich., 600 tons; Greeley, Colo., 800 tons; Eaton, Colo., 500 tons; Fort Collins, Colo., 500 tons; Croswell, Mich., 600 tons.

Below we give a list of beet-sugar projects that are contemplated for the places named, having a daily capacity named. We also set opposite the amount of capital that would be required to equip and construct such factories.

This list of projects are in different stages of organization and capitalization, consisting of concerns fully organized and capitalized down to concerns where conditions have been thoroughly canvassed, understood, and appreciated, and where organization and capitalization seem imminent.

All of these projects we consider strong possibilities in the near future, provided questions affecting the beet-sugar enterprise are settled. There are many others for which we have not the data.

The list, giving first the State, the town, the daily capacity, and the cost of construction and equipment is as follows:

Name of town.	Daily capacity.	Cost of construction and equipment.
ARIZONA.	*Tons.*	
Phoenix	1,000	$1,000,000
Glendale	500	500,000
CALIFORNIA.		
Hemet	500	500,000
Hueneme	500	500,000
Anderson	1,000	1,000,000
Tehama	500	500,000
Los Angeles	1,000	1,000,000
COLORADO.		
Fowler	500	500,000
Denver	500	500,000
Fort Collins	1,000	1,000,000
Arveda	500	500,000
Prowers County	1,000	1,000,000
Longmont	1,000	1,000,000
Amity	500	500,000
INDIANA.		
Shelby	1,000	1,000,000
IOWA.		
Mason City	500	500,000
Sioux City (sirup factory)	.....	100,000
Missouri Valley	1,000	1,000,000
Toledo	500	500,000
Storm Lake	500	500,000
Fort Dodge	500	500,000
IDAHO.		
American Falls	500	500,000
MICHIGAN.		
Port Huron	500	500,000
Chippewa County	500	500,000
Racine	500	500,000
Grand Rapids	800	800,000
Lapeer	500	500,000
Port Austin	500	500,000
Green Bay	500	500,000
Dundee	750	750,000
Caseville	650	650,000
Monroe	600	600,000
Saginaw	500	500,000
Owosso	500	500,000
Chesaning	500	500,000
Grand Rapids	350	350,000
Croswell	700	700,000
Monroe	800	800,000
Howell	500	500,000
Fowlerville	500	500,000
Cass City	500	500,000
Mount Pleasant	500	500,000
Omer	500	500,000
St. Louis	500	500,000
Mason	500	500,000
Pinconning	500	500,000
Charlevoix	350	350,000
Pontiac	500	500,000
Ann Arbor	400	400,000
St. Johns	500	500,000
MINNESOTA.	*Tons.*	
Kenmark	500	$500,000
Little Falls	400	400,000
New Braig	500	500,000
Winona	500	500,000
Crookston	500	500,000
MONTANA.		
Hamilton	500	500,000
NEW YORK.		
Wellsville	500	500,000
Rochester	1,000	1,000,000
NEW JERSEY.		
Mount Morris	500	500,000
NORTH DAKOTA.		
Oaks	500	500,000
Fargo	500	500,000
OHIO.		
Toledo	500	500,000
Sandusky	500	500,000
Norwalk	350	350,000
OREGON.		
Portland	500	500,000
PENNSYLVANIA.		
Shawmut	500	500,000
SOUTH DAKOTA.		
Aberdeen	500	500,000
Kimball	500	500,000
UTAH.		
Uinta	1,000	1,000,000
Bear River Valley	1,000	1,000,000
Gunnison	500	500,000
WISCONSIN.		
Sheboygan	350	350,000
Racine (4 plants)	[a]500	2,000,000
Oconomowoc	500	500,000
Waupaca	500	500,000
Watertown	500	500,000
Stevens Point	500	500,000
Beaverdam	500	500,000
Burlington	500	500,000
Franksville	500	500,000
Kaukauna	500	500,000
WYOMING.		
Wheatland	500	500,000
Cheyenne	1,000	1,000,000
Total	.....	49,000,000

[a] Each.

The above is a partial list that we have picked up incidentally, but is authentic so far as it goes; and to install these factories it will require an investment of $49,000,000. They would require annually a working capital, in addition, of $9,080,000, would purchase from the farmers annually, beets to the amount of $14,700,000, besides a great many other crude materials, and would employ a large number of laborers.

The following States have already entered the list as beet-sugar producers at the places named, having a capacity as given:

Beet-sugar factories of the United States and Canada.

Name.	Location.	Daily capacity.
MICHIGAN.		
		Tons.
Michigan Sugar Co	Bay City	500
Bay City Sugar Co	do	600
Detroit Sugar Co	Rochester	500
Wolverine Sugar Co	Benton Harbor	350
Peninsular Sugar Refining Co	Caro	600
West Bay City Sugar Co	West Bay City	750
Alma Sugar Co	Alma	600
Holland Sugar Co	Holland	350
Kalamazoo Sugar Co	Kalamazoo	500
Marine Sugar Co	Marine City	350
Lansing Sugar Co	Lansing	600
Saginaw Sugar Co	Saginaw	600
German-American Cooperative Beet Sugar Co.	Salzburg	400
Sebewaing Sugar Co	Sebewaing	600
Valley Sugar Co	Carrollton	600
Macomb Sugar Co	Mount Clements	600
NEW YORK.		
Binghampton Beet Sugar Co	Binghampton	600
Empire State Sugar Co	Lyons	600
COLORADO.		
American Beet Sugar Co	Rockyford	1,000
Colorado Sugar Manufacturing Co	Grand Junction	350
National Sugar Manufacturing Co	Sugar City	500
Western Construction Co	Loveland	1,000
Greeley Sugar Co	Greeley	800
UTAH.		
Ogden Sugar Co	Ogden	350
Utah Sugar Co	Lehi	350
Utah Sugar Co. (rasping station)	Springville	350
Do	Bingham Junction	350
Do	Provo	350
Logan Sugar Co	Logan	400
NEBRASKA.		
American Beet Sugar Co	Grand Island	350
Do	Norfolk	350
Standard Beet Sugar Co	Leavitt	500
CALIFORNIA.		
Alameda Sugar Co	Alvarado	800
Spreckels Sugar Co	Watsonville	1,000
Los Alamitos Sugar Co	Los Alamitos	700
American Beet Sugar Co	Chino	1,000
California Beet Sugar and Refining Co	Crokett	1,200
Spreckels Sugar Co	Spreckels	3,000
American Beet Sugar Co	Oxnard	2,000
Union Sugar Co	Betteravia	500
OTHER STATES.		
Minnesota Sugar Co	St. Louis Park, Minn	350
Illinois Sugar Refining Co	Pekin, Ill	700
Continental Sugar Co	Fremont, Ohio	350
Central Sugar Co	Shelby, Ind	500
Wisconsin Sugar Co	Menominee Falls, Wis	500
Pecos Valley Beet Sugar Co	Carlsbad, N. Mex	200

TABLE 2.—EFFECT OF THE INDUSTRY ON CAPITAL, LABOR, AND PRODUCTS.

	Tons.	Tons.
The total consumption of sugar in the United States last year was 2,219,847 tons, and based on the average increase of 6.34 per cent during the past nineteen years, the consumption for the present year should be		2,360,585
To meet our annual requirements we must import to the United States proper the balance of this amount that we do not manufacture. Our home production is as follows:		
Cane sugar of the South	300,000	
Beet sugar of the North and West	150,000	
		450,000
Balance imported		1,910,585
Our requirements from the outside for 1902 will be practically		2,000,000
Of this amount from our insular possessions, free of duty, we receive:		
From Porto Rico (about)	100,000	
From Hawaii (about)	300,000	
		400,000
We must secure from strictly foreign sources, duty paid		1,600,000

It is the ambition of those encouraging the beet-sugar industry to establish factories enough at least to furnish this foreign supply.

Taking into account a fair estimate for the annual average shortage throughout the United States for actual productions, as compared with full capacity under ideal conditions, it will require 500 factories having a daily capacity of 500 tons of beets to produce this foreign sugar. In order to equip and build these factories, it will require an investment of capital of $250,000,000.

This vast sum of money must be expended in our country for building materials and machinery and in the employment of labor necessary to construct and equip them. These factories will require annually 18,750,000 tons of beets and pay to the farmers for same $75,000,000. There would be required 2,625,000 tons of coal, for which coal merchants would receive $7,875,000; also lime rock, 1,500,000 tons, worth $3,000,000. In addition to these vast sums of money would be paid out to our people for coke, mill supplies, transportation, labor, etc. As a working capital to operate these factories it would require the employment of about $130,000,000 for the campaign of four months. This is equal to the employment of nearly $45,000,000 for one year.

We should consider further that we already have invested interests in addition to the above estimates, drawn into the beet-sugar industry through our present favorable trade and economic conditions, as follows:

Invested capital in factories, equipment, and grounds		$30,000,000
Annual amount of beets purchased	tons	1,875,000
Annual cash paid for beets purchased		$7,500,000
Annual coal consumed	tons	262,500
Annual cash paid for coal		$787,500
Annual lime rock purchased	tons	150,000
Annual cash paid for lime rock		$300,000
Annual operating capital employed (per annum)		$5,000,000

Also a considerable amount annually expended for various other sundry articles, as crude material and for labor, etc. It hardly seems

possible that an industry that affects so many people over such a wide scope of our country can fail to receive anything but the most friendly, careful, and fostering consideration on the part of those who shape our industrial affairs.

TABLE 3.—ANALYTICAL DATA, GIVING ELEMENTS AND ITEMS OF COST OF SIMPLY REFINING IMPORTED RAW SUGAR AS COMPARED WITH THE ELEMENTS AND ITEMS OF COST OF MANUFACTURING AND REFINING BEET SUGAR, BASED ON THE RAW PRODUCT (100 POUNDS).

TABLE A.

(A) ELEMENTS, WITH COST AND PER CENT OF COST OF REFINING THE IMPORTED RAW PRODUCT (100 POUNDS).

	Cost.	Per cent.
Raw product	$2.40	51
Waste sugar	.28	6
Refining	.35	7.4
Tariff	1.68	35.6
	4.71	100.00

Cost of refining, $0.63.
Cost of refining, 13.4 per cent.

TABLE B.

(B) ELEMENTS, WITH COST AND PER CENT OF COST OF MANUFACTURING AND REFINING BEET SUGAR (100 POUNDS).

For beets	$1.428	62.7
For manufacturing	.60	26.33
For refining	.25	11.00
	2.278	100.03

EXPLANATIONS.

(A) Data for Table A secured as follows:
No. 1. "Raw product, $2.40," is the average price of raw sugar, as per Treasury statistics for the last fiscal year.
No. 2. "Waste sugar" is the value of the wastes in refining 100 pounds of sugar.
No. 3. "Refining" is the actual cost of refining aside from the above item.
No. 4. The values for 2 and 3 were taken from the testimony of the refiners of this country before the Industrial Commission. (See extract from Report below.)
No. 5. "Tariff" in Table A is the regular charge on raw sugar imported of this class.
(B) Data for Table B secured as follows:
No. 1. "For beets, $1.428" is secured, as all these items are, from the German statistics, compiled from their average production. We have no reliable data for our own production of sugar from beets. These items of cost will be somewhat lower than our own, but their relative value of cost, based on the per cent, will conform very largely to our own when our cost of production becomes more staple

DEDUCTIONS AS TO REFINED PRODUCT.

No. 1. "Raw product, $2.40," is an element of cost acquired by foreign labor and machinery and crude materials.
No. 2. "Waste sugar, $0.28," is simply a loss from which nobody derives any benefit.
No. 3. "Refining" is the one item in which home labor, crude products, capital participate, which in itself is 7.4 per cent of the cost of the refiner's product, or, added to the item above, No. 2, making a cost of 13.4 per cent.

DEDUCTIONS AS TO BEET-SUGAR PRODUCT AT HOME.

No. 1. "For beets, 62.7 per cent," is the cost in the manufacture of sugar from beets that goes to the farmer for his products and rents, to the laborer on the farm, to the implement dealer, seed producer, etc.
No. 2. "Manufacturing, 26.33 per cent," is the amount that goes to the manufacture, and for labor in the factory, and for fuel, and for other crude products.
No. 3. "Refining, 11 per cent," is an additional item that goes to the same sources as the item above.

[Extract from Industrial Commission: Digest of evidence. Report of 1900. Vol. 1, p. 66.]

(See "explanations" above.)

The following estimate was prepared by the general manager of the National Sugar Refining Company. This shows that the cost of refin-